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Number 7
December 1989
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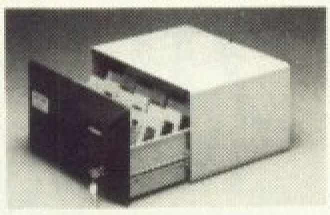
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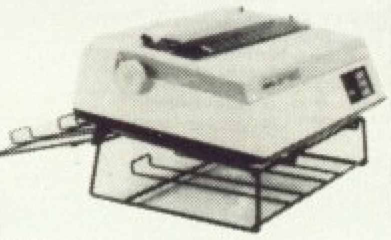
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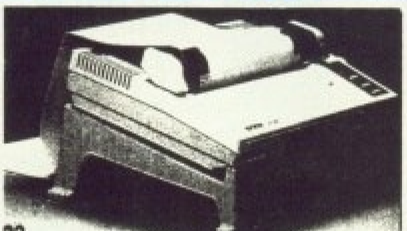
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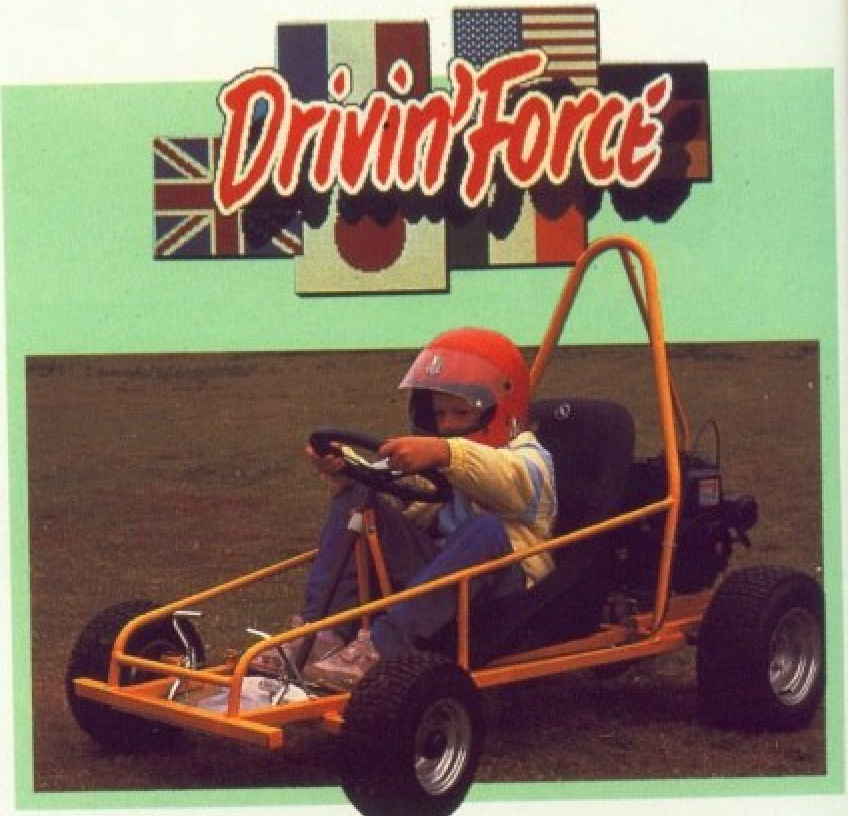
7 LATEST NEWS

Commodore supremo falls from grace. The truth about Music-X junior. Plus news of extra nodes for MicroLink and a game prize.

AMIGA ARCADE

14 HOTTEST ACTION

Will the new Asterix game purge bad dreams left by the last one? Why is Power Drift so good? Meet the man behind Hard Drivin'



Win this . . . Page 78

SHOW GUIDE

61 SHOPPER'S WORLD

Your guide to the busiest computer show this side of Sirius B. And there is loads of Amiga stuff there if you know where to look.

COVER STORY

70 NO HARM DONE

Who are the hacking heros? Do they really do any harm? Can FAST stop them? Piracy pays, but who loses? Good software can be the result.

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78 DRIVIN' FORCE

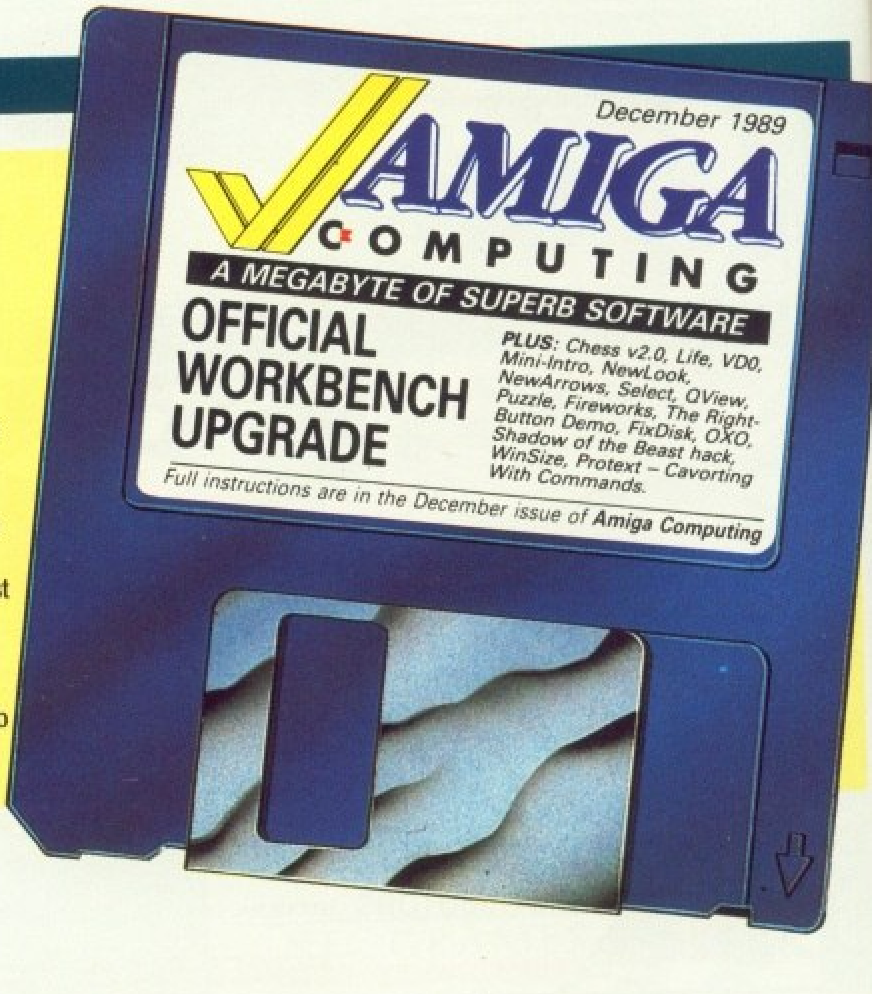
Get behind the wheel of a rough, tough, off-road buggy suitable for even the greenest driver, thanks to Digital Magic Software.

COVER DISC

49 DISC PAGES

Commodore's official upgrade: The Amiga Computing Disc gives you more software than the mind can handle. Read and enjoy the best that Commodore, the domain and others have to offer.

Some programs are written by the pros at Commodore and Argonaut, some by unsung heros and some just for kicks but they all meet the exacting high standard you have come to expect. Amiga Computing doesn't fob you off with a duff demo and then make you pay for it.



REVIEW

81 RIPPING YARNS

Talespin is just what you need to create your own adventures. False. It is really an educational tool, but why is it living the lie? Green explains.

HARDWARE

86 CITIZEN'S SWIFT 24

Cheap printers are getting better while better printers are getting cheaper. Duncan Evans stretches the pins on Citizen's latest 24 pin.

MACHINE CODE

97 THE RIGHT BUTTON DEMO

When worlds collide it is vital to know which sprite has hit a playfield. Jolyon Ralph takes the register in hackers class.

GAME KILLER

103 MAX THE HACKS

Master of the dead game, MTH presents a selection of solutions to some classic games and a disc based shadow of the Beast beater.

WORDPROCESSING

105 USING PROTEXT

Peter Ceresole cavorts with commands and finds that operating the Amiga can be easier inside Protext than from the CLI.

CHALLENGE

110 DIGIPAINT v PHOTON

They are both for touching up HAM artwork. Both programs offer many enhancements on the first edition, but which wins the paint battle?

FEATURE

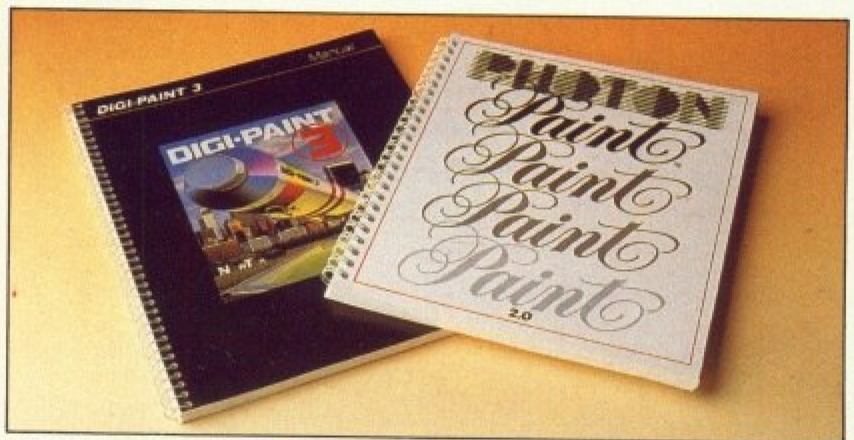
118 THE $5m PERIPHERAL

Two men and a Cray supercomputer produce the most amazing ray traced images. Who are they and what has an Amiga got to offer?

LETTERS

121 EZRA SURF'S POSTBOX

Stop bitchin' and start scribblin' 'cos Ezra Surf is the mailman who washes whiter than white. To read what you write post it tonight.

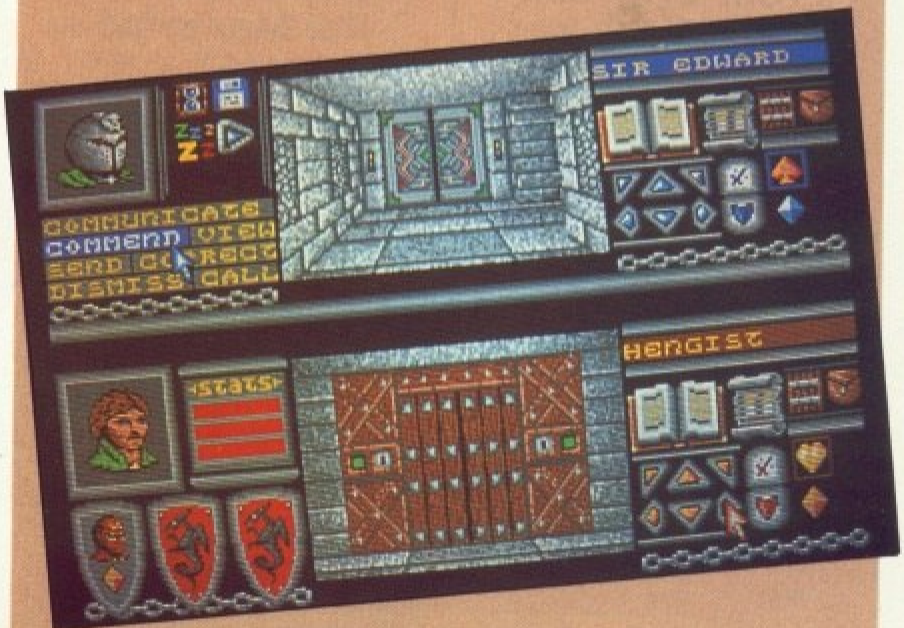


DigiPaint 3 v Photon Paint 2 . . . Page 112

GAMES REVIEWS

Amiga Computing Excellence





Plus

- Stormlord wins an award
- Future Wars present a tasty menu
- Games Summer edition have Seoul
- Red Lighting strikes gold
- Day of the Pharaohs. Night at the...
- Altered Beast – surrealist gore
- Super Scramble makes a foot fault
- Dynamite Dux for arcade clucks
- Turbo spends life in the fast lane
- Bloodwych – double dungeon
- Gridiron from the boys in the USA
- Hillsfar alive with the sound of...

AMIGA SCENE

Gong for the best game

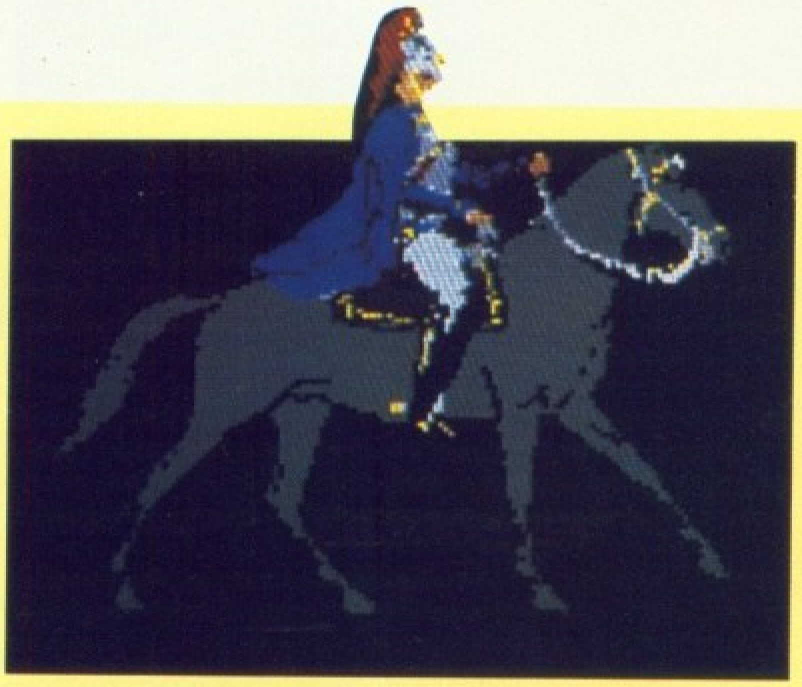
THE search is on to find the best Amiga game in Europe. It is part of a prestigious new series of awards linked to the European Computer Trade Show to be held at London's Business Design Centre from April 1 to 3 next year.

National competitions will be arranged with the winners of each going through to the final at ECTS 90. Negotiations are underway with key industry organisations in France, Germany, Spain, Italy, Scandinavia and throughout the UK to coordinate the awards on the lines of the Eurovision Song Contest. The 23 award categories will be broken down into leisure, small business, trade and media sections. Judging will be by an independent panel of computer journalists from various countries.

"What makes these award not only different but more important than any other is the fact that they are European", said Michael Meakin, joint managing director of the Europess Group and chairman of the awards steering committee.

"As such, they will bring all the elements that make up the leisure and small business sectors of the computer trade within the EC that much closer together so that we will all be ready to take full advantage of 1992.

"We see the European Computer Trade Awards as a natural extension to the European Computer Trade Show and are convinced they will achieve a similar status from year one".



Now clip art's on the move

WHY restrict yourself? Or so asks Robin Bilson of RGB Studios. Real Things is a new program which helps you learn how living things move.

When you are taught to draw you learn how to look at things, to see how they reflect light and cast shadows. When you are taught to animate you learn how movement works. A horse's tail rises as the rump falls.

While most of us are taught to draw in school, with varying degrees of success, most young animators are held back. The expense and physical problems of using stop frame film cameras are prohibitive.

The Amiga and Deleuxe Paint III solve this. You can learn to animate with any 1 meg Amiga. But you still need lessons.

Real Things is a collection of animated clip art. Designed for use either with the 12 page user guide or in a classroom,g2 Real Things shows you how to put together convincing Animbrushes and achieve realistic effects.

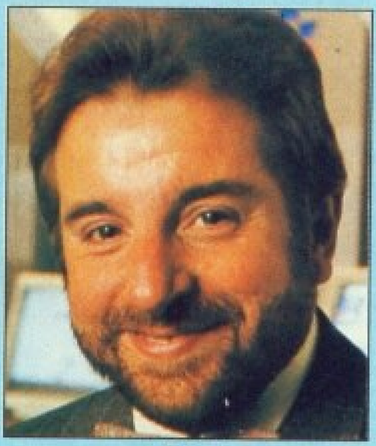
There are several discs dealing with different topics, each with expertly produced artwork. The pictures we have seen have a strong oil painting feel, unlike any other Amiga art. It is a little strange to see a painting move.

More details from Digipro on 0703 703030.

Commodore marketing being restructured

Does this headline sound familiar? We used it last September when Jeff Earl joined Commodore. Well in a bid to save money Amiga Computing can re–use the words. Because the Earl has been disrobed. . or perhaps he was just unsuited.

Officially he has left to "pursue his own interests". In practice he has got the sa.. ouch! erm, in practice he left to pursue his own interests.



Jeff Earl

Commodore, the company famous for having more doors marked "exit" than marked "welcome", does not yet ask new recruits to sign the visitors book. But it is still left with a substantially bigger marketing departmen than it had last year.

The remaining staff are more than capable of ensuring that this year's multi–million pound advertising campaign swings smoothly into action.

For the second time we will see the Amiga on television and extensive press advertising. There will also be new machines in the PC (yawn) range, including a super–fast 80386 machine known as the PC 50.

The 486 range, along with all other manufacturers' 486 machines, is likely to be hit badly by damage the Intel 80486 plant suffered during the Californian earthquake.

This can only bode well for the 69000–based Amiga, because Motorola makes lots of chips in nice safe places like Scotland.

Links cover the country

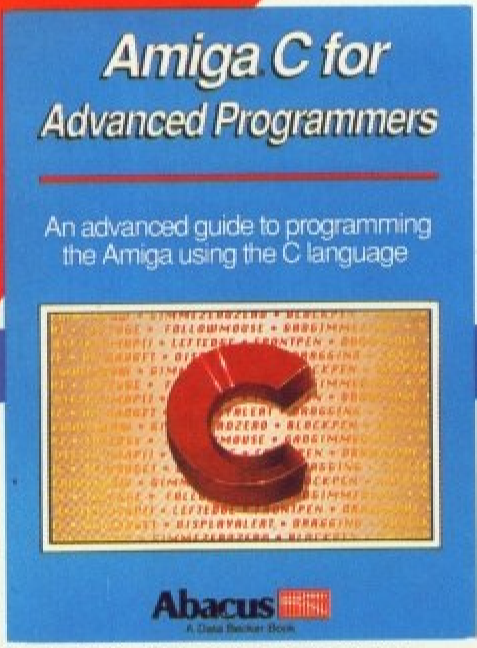
SINCE the new MicroLink communications service was launched, 124 extra telephone access points have been opened in various parts of the UK from Dunfermline in Scotland covering the Edinburgh area down to Plymouth.

This brings the total to 280 compared with the 63 which were previously available over British Telecom's PSS network which MicroLink subscribers used before they switched from Telecom Gold to the independent Istel-Inet network on October 1.

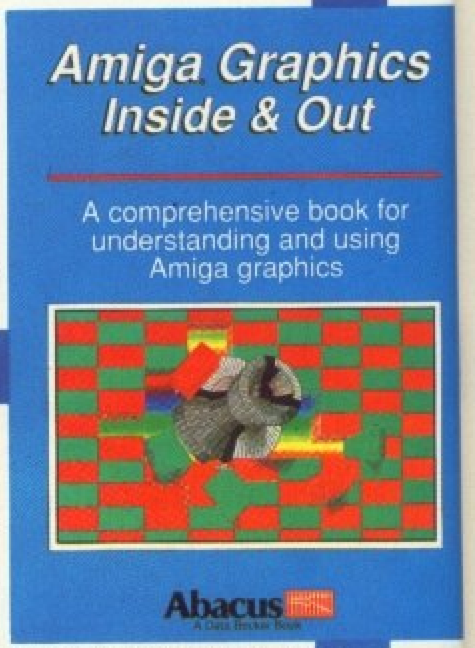
This means that almost 100 per cent of the UK population can now access MicroLink for the price of a local phone call. Before the changeover, in addition to having to make longer distance calls, they also had to

▶

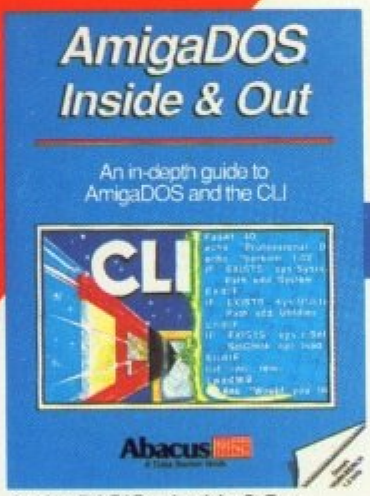
New Titles for Amiga



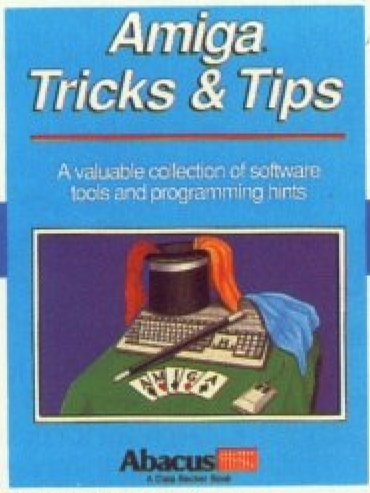
Amiga C for Advanced Programmers – contains a wealth of information from the pros: how compilers, assemblers and linkers work, designing and programming user friendly interfaces using Intuition, combining assembly language and C code together. Includes complete source code for a working text editor.
April 1989 about 380pp



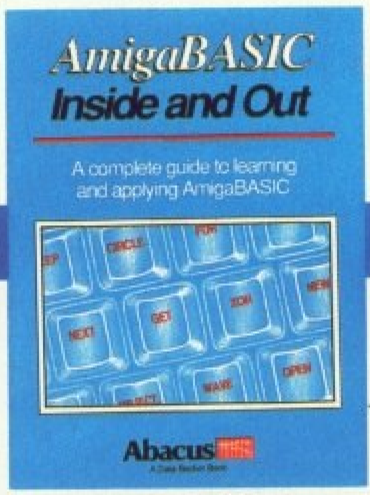
Amiga Graphics – Inside & Out – an in depth treatment of the Amiga's super graphic features and functions. Learn how to access these graphic features from AmigaBASIC or C. Learn graphic programming in C with examples of points, lines, rectangles, polygons, colors and more. Contains a complete description of the Amiga graphic system – View, ViewPoint, RastPort, bitmaps, screens, and windows, more.
May 1989 about 450pp



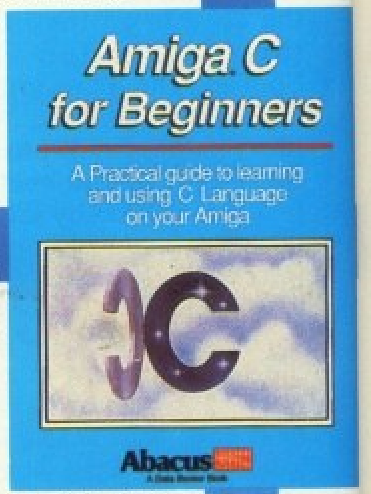
AmigaBASIC – Inside & Out – is THE definitive step-by-step guide to programming the Amiga in BASIC. Each BASIC command is fully described and detailed. Some of the topics covered include files and file handling, using pull-down menus, sensing the mouse, handling windows, drawing charts and using the speech commands. Techniques for advanced BASIC programmers.
554pp



Tricks & Tips – here is a large collection of useful and important programming techniques that makes working with your Amiga friendlier and easier. Presents dozens of tips on accessing libraries from BASIC, making and using custom character sets, using AmigaDOS, important 68000 memory locations, and much more.

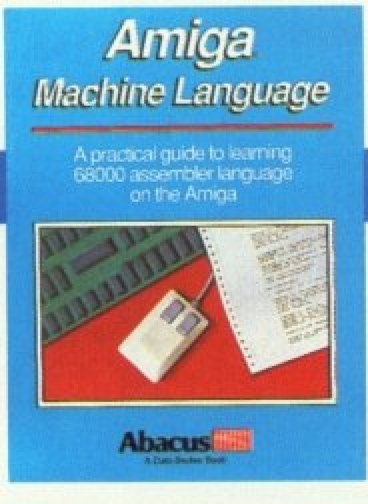


AmigaDOS – Inside & Out – covers AmigaDOS in depth so that you can use many of its advanced capabilities for practical applications. Includes complete reference section detailing all of the DOS commands, information on using the DOS editors – ED and EDIT, creating and using script files and taking advantage of the Amiga's multitasking features.
280pp

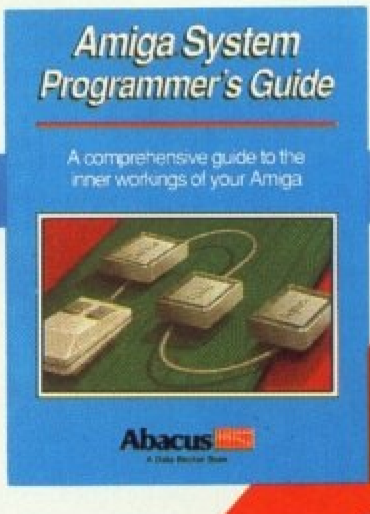


Amiga C for Beginners – an introduction to learning the language of choice among Amiga programmers. Unlike other books, the examples here are specifically geared to the Amiga. Explains the language elements of this popular language so that you'll be able to use the C library routines, learn how the compiler works, more.
280pp

Amiga Machine Language – is a thorough introduction to 68000 assembler programming and is a practical guide for learning to program the Amiga in ultra-fast machine language. Covers 68000 microprocessor architecture and addressing modes, making speech and sound from machine language and more. This book is also a perfect companion to our AssemPro machine language development software.
264pp



Amiga System Programmer's Guide – an in-depth volume to what goes on inside the Amiga. Includes "nitty gritty" information on both the hardware and software aspects of the Amiga. Covers the EXEC and its structure, handling I/O requests and the interrupts, managing the Amiga's resources and multitasking functions, more. Considered by many to be a standard reference for all Amiga programmers.
438pp



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Assembler for the professional

DEVPAC Developer, a professional version of HiSoft's assembly language development system has now been launched for the Amiga.

Offering more power and new options, it is aimed at professional users .

Main improvements over the ordinary Devpac Amiga version involve the handling of multiple filetypes, a new linker and the provision of dual debugging.

The assembler itself has been extended to allow the creation of multiple output file types independent of host machine. A new linker also allows this type of cross-development and the program can now generate absolute files and Motorola S-records.

The 68010/20/30/881/882/851 instruction sets are also supported, together with numerous new options for power users. Despite this increase in power, the assembler is actually faster than the original, thanks to new parsing techniques.

Using additional hardware available for the Amiga, Devpac Developer allows dual machine development.One machine can be used to edit, assemble and link, then it can transmit the code to the other machine for execution.

In addition a special remote debugger, ostensibly similar to its MonAm predecessors, allows complete remote machine control, placing no special requirements on the remote machine.

This gives games programmers who tend to wipe out native debuggers their first chance to use what is a powerful diagnostic tool.

At least 1Mb of ram is needed on the development machine to use Devpac Developer. Price from £199.

◀

pay a PSS surcharge of 3p a minute.

"More than a hundred of the new access points support MNP error correction", said MicroLink chairman Derek Meakin. "This is part of our plan to blanket the country with high-speed links offering fast access coupled with the last word in trouble-free data transmission".

A bundled 500 for education

COMMODORE has just launched a new Amiga bundle aimed at the education market.

Its Class of the '90s pack includes an Amiga 500 keyboard with 3.5in internal drive, mouse, 512k ram and Midi interface, a range of resource software and support materials for £573.

Software in the pack is Deluxe Paint II, Superbase Personal, Maxiplan, Publisher's Choice, Dr.T's Midi Recording Studio, Amiga Logo and Commodore's BBC emulator with a selection of BBC programs. Also included are 10 blank discs, a mouse mat, disc wallet, education file with more than 100 pages of advice, guidance and worksheets relating to the national curriculum, product reviews, education news, feature articles, list of users in education and information on public domain software.

The pack is available from Commodore education dealers who provide local support backed by Commodore's technical support services and an enhanced seven day repair facility.

An additional offer is a free Amiga 500 to all purchasers of 20 packs. "The bundle gives teachers and pupils a chance to work with exciting software on a machine capable of handling all their different requirements", said a Commodore spokesman.

"For example, music teachers can now take their pupils into another world with Mr.T's Midi Recording Studio where they can recreate, using the modern methods of today's recording studios, music they hear on the radio every day.

"We see bundles also helping those children who have certain learning difficulties and cannot keep up with the rest of the class. We recently completed a primary project with a number of schools throughout the UK and Richard Adams, a teacher at Holway Community Junior School, was enthusiastic about the Commodore Amiga 500.

"He discovered children with severe learning difficulties suddenly found themselves on a par with their peers while the machine brought out qualities in some children he didn't know existed".

Optional extras recommended by Commodore include a 1084 colour monitor at £225, an Amiga 501 ram expansion at £126 and an Amiga 1010 external driver at £126.

The software from the bundle is available to schools which currently use a Commodore Amiga 500 as an upgrade software kit for £150.

Don't call me Music X junior

THERE is only one thing wrong with the best music program in the world: Music-X is professionally priced. But a cheaper version is in the pipeline.

Amiga Computing spoke to author David Joiner and asked what would be omitted from Music-X Junior. "Well, for start that's not what it's called. We don't know what it will be called, but I will not allow the word junior in any of my products", he said.



However the marketing department may overrule the programmer's decision. What matters is how much has been taken out.

"What will be omitted is the event editor, librarian, protocol editor, patch editor, Midi time code, smpte and some recording options. The sequencer and bar editor are unchanged, filters are somewhat abbreviated, Amiga samples the same, and slightly reduced keymap editor", David told us. We look forward to seeing it.

Microillusions has a real hit on its hands, Music-X looks set to help the Amiga steal the ST's crown as the machine to use for controlling musical instuments.

The cost reduced program, whatever it is called, should be available very soon for less than £100. For more details call Microillusions UK on 0480 496497.

Extended offer

KUMA (07357 4335) has extended its promotional offer on K-Roget Thesaurus for the Amiga. Savings of £20 on the usual price of £49.95 will continue until December 31.

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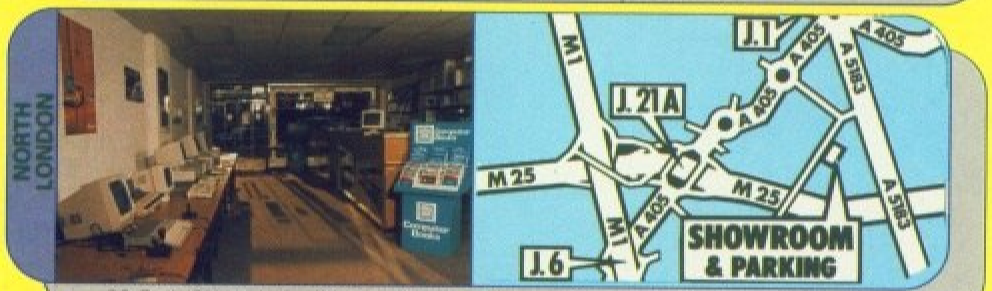
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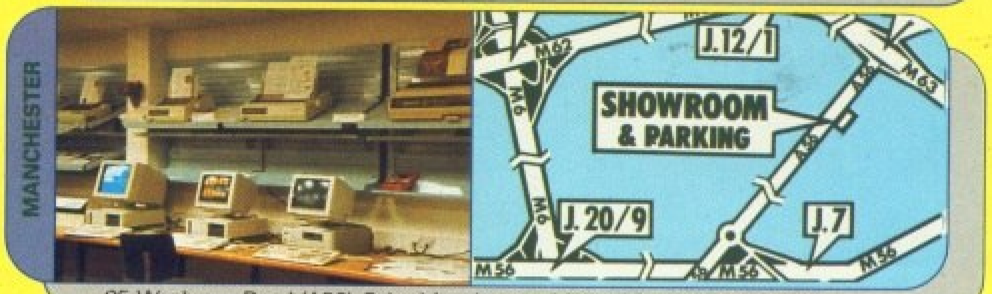
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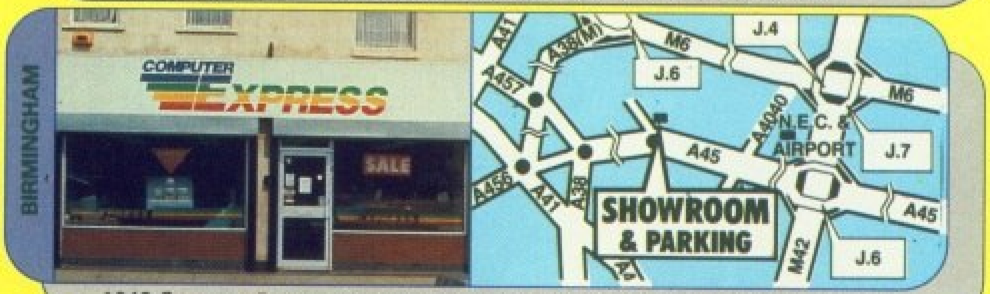
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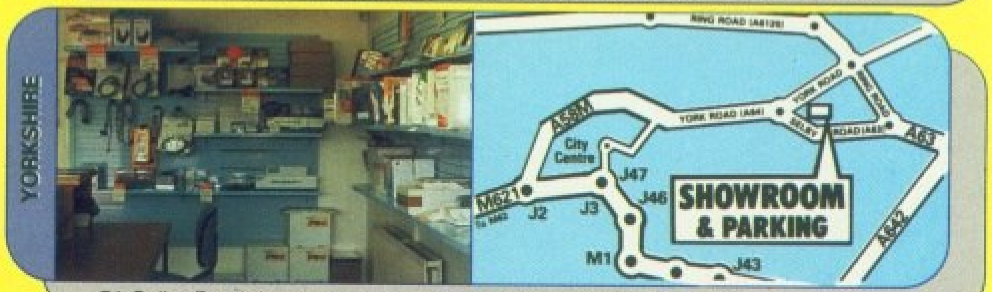
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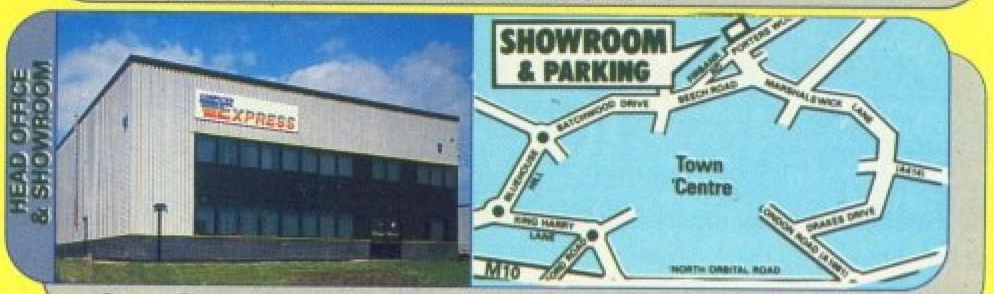
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Amiga Arcade

In the drivin' seat



Juergen Friedrich: "I don't like driving very much"

FASHION is fickle, and the arcade industry is as footloose as any other. Keeping up with the trends is hard work for the likes of Domark, the company which produces the official Atari coin-op conversions.

Mimicking the heavy duty custom hardware in the newest arcade simulators is tough. Hard Drivin' is the toughest. Juergen Friedrich is Domark's saviour. He is the man who has produced the stunning conversion. And he did it in C.

Juergen is something of a C fan. His first programming experience was in Basic and assembler on a Tandy TRS-80 and then on an Atari 800, the real precursor to the Amiga. He switched to C when he started programming professionally on an Apple II.

This led to producing some graphics routines for a CAD package. Away from the computer, Juergen is something of an arcade addict. He got to be very good at Star Wars, but hated pouring money into the coin-op. So he wrote his own version for the newly launched Apple Mac. And very good it was too.

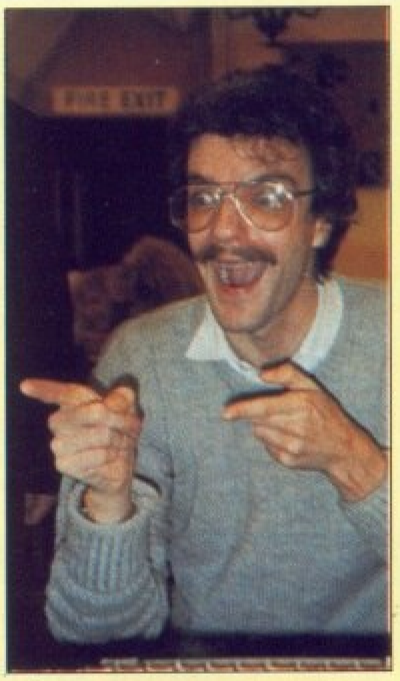
After touting Star Wars around software houses for a bit he was approached by Domark, which had already won a fierce battle against other companies for the rights to produce a home computer version.

Juergen dived into his C source and produced the excellent ST and Amiga versions, recently re-released in the Star Wars Trilogy. Today they look a little simplistic, but there are new challenges, and Hard Drivin' is the greatest.

Starting with the ST version Juergen wrote the game in Turbo C with machine code subroutines. For the Amiga version he has used



Abridged too far



Onslaught programmer Chris Hinsley: "D'you wann silly pose or a serious one"

THE land of Gargore is a very dodgy place, full of bloodthirsty troops, wizards and various forms of the not quite dead.

In Hewson's Onslaught you play the role of a fanatic, a single man with the strength of an army whose sole aim is to rid the land of your enemies and capture their flag.

In an interesting cross between role-playing and arcade action you must best the foe in a wide range of combat from pitch battles to mind combat.

Joystick power alone will not be enough to give you victory – you'll have to use your brain to prevent the enemy from out-manoeuvring you.

Different tribes inhabit each of the 10 kingdoms which add up to give a total of 2,560 locations, represented on a large scale campaign map. There is even a option to create your own kingdoms.

Created by Chris Hinsley and Nigel Brownjohn of Custodian fame, Onslaught should be fighting its way on to the shelves round about now.

All the latest news on the games software scene

Aztec C. Most games writers sneer at programmers who don't use machine code. But Juergen believes there would be no advantage.

"It is not necessary to do everything in assembler", he explains, "because only a very small percentage of the code is used at any one time. A lot of it might be in C, but while the action part of the game is running the computer spends 90 per cent of its time in the assembler subroutines.

"I've got a frame rate of 10 to 15 frames per second. I don't think any speed improvement from re-writing the whole game in assembler would be noticeable".

And he is probably right. The early demo looks great, but it will take a proper review to determine whether he has captured the true driving feel of the arcade original.

Pretty Marvellous

SPIDER sense is tingling. Could it be that old arch-villain Dr Doom, or is it perhaps that Empire is due to release what it claims to be the first interactive arcade comicbook adventure. We think Coktel Vision and Asterix might have something to say about that.

Dr Doom's Revenge will feature two of the best known Marvel superheroes, Captain America and the amazing Spiderman, locked in combat with the evil Dr Doom, who has cooked up some new schemes to dominate the world.

Spidey and Cap are the last chance we have to save the world for democracy as they battle through more than 30 arcade sequences, dodging the assembled might of the underworld, including such famous names as Electro, Rhino and the Hob Goblin, before they come mask to mask with old Tin Nose.

The graphics will be looking to resemble the style of the comicbooks as closely as possible.

An actual Marvel comic book will be included in the pack which illustrates the plot leading up to the action in the game.

Not only a great looking game but also a probable collector's item, the everlovin' Dr Doom's Revenge will cost £24.99.

Yee-har!



Far West: The ultimate wild west cowboy adventure, says EAS

THE aim of Far West, the new cowboy adventure from EAS, is simply to survive and make as much money as possible.

Create your own cowboy, buy whatever you need – guns, beer, food, equipment – and then choose how to play the game.. Trek into the wilderness by train or horse to hunt bears or build yourself a gold mine. If you have a gun, robbing a bank becomes a possibility.

EAS says you can let your imagination run wild, *Amiga Arcade* says it all sounds ominously like a re-hashed version of Stag.

Mafia mayhem

WILD STREETS is the new game from Titus. During an attempt to wipe out organised crime, the chief of intelligence has been kidnapped by the Mafia. Which wasn't very intelligent of him.

It is your task to get him out of this mess, but in accepting the mission you declare all-out war on the Mafia. Which wasn't very intelligent of *you*. Every thug in town is on your tracks. Your only ally is a magnificent black panther which watches your every move through the 30 levels of the game. When things get too hot, he will spring into action to protect you. Nice pussy.

Your task is set, the streets of Long Island are waiting.



Watch out Crockett and Tubbs, here I come

REVIEWED THIS MONTH

94% Stormlord
93% Future Wars – Time Travellers
92% Red Lightning
92% The Games – Summer Ed ition
84% Bloodwych
82% Altered Beast
78% Grid Iron
73% Turbo
72% Hillsfar
72% Strider
71% Dynamite Dux
63% Super Scramble Sim
23% Day of the Pharaohs

MAX HACKS

- **Kick Off**
- **Robocop**
- **Faery Tale**
- **Raider**

Gallup Chart

		Last Month
1	Xenon 2 Imageworks £24.95	NE
2	Populous Data Disc Electronic Arts £9.99	NE
3	Shadow of the Beast Psygnosis £34.95	NE
4	F16 Combat Pilot Digital Integration £24.95	NE
5	Bloodwych Imageworks £24.99	NE
6	Kick Off Anco £19.99	5
7	Populous Electronic Arts £24.95	4
8	Falcon Mission 1 Mirrorsoft £19.99	3
9	Falcon Mirrorsoft £29.95	8
10	New Zealand Story Ocean £24.99	1

Grabbed by the Gauls

ASTERIX the Gaul is 30 years old. To celebrate, French games house Coktel Vision is releasing a cartoon adventure, Asterix and the Enchanted Stone.

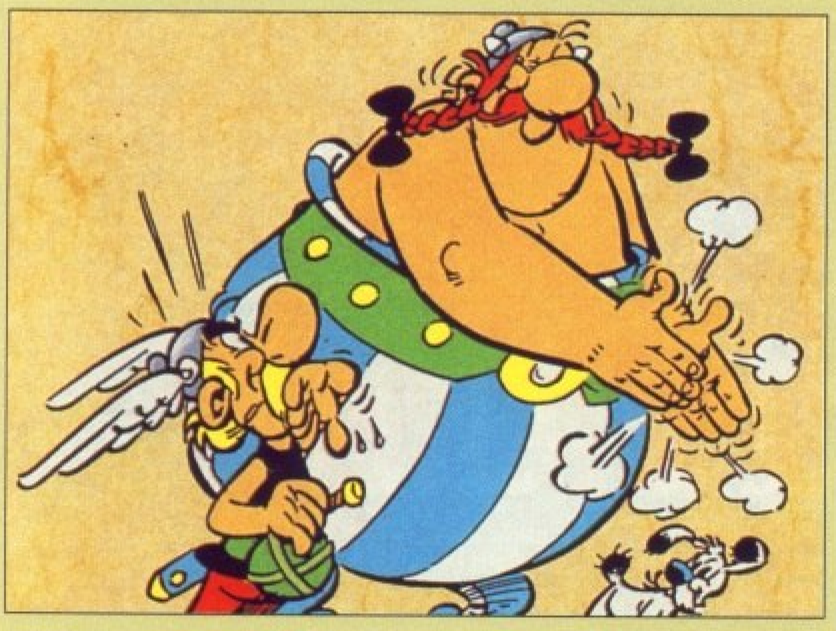
Panoramix the druid has been accidentally hit on the head and knocked out by the Enchanted Stone. He has now lost his memory and the formula for the magic potion.

Now, we've asked around everywhere (well, almost everywhere) but nobody can remember this Panoramix guy. Winesanspirix, Vitalstatisix, Localpolitix, Forinpolitix, Getafix, Obelix, Geriatrix, Doublehelix, Chief Whosemoralsarelastix, Fulliautomatix... names we all know and love. But Panoramix? Who he?

Anyway, playing the part of the macho Gaul himself you must find the ingredients and mix them to cure the unknown druid. With 20 possible combinations, this will not be easy.

You will be able to move freely in the forest between Gallic village and Roman encampment. But beware because the forest will be riddled with traps and various tests. Things like wild boars, toxic fumes and, of course, the Romans.

With 30 screens to explore and out mid November, Asterix and the Enchanted Stone looks like one to see you through the after-Christmas doldrums.



The heroes battle again



Pass the can opener, I'm feeling lucky!

HEROES of the Lance was arguably the most popular role- playing game ever. So what could be more natural than a sequel?

In typical Empire Strikes Back style, the heroes are waylaid on their triumphant return from the previous mission and captured by the bad guys. Their escape is taken for granted.

You join the action in Dragons of Flame, a now hostile homeland swarming with refugees from the big fight against the Queen of Darkness.

The only hope for civilization now is that you obtain the fabled Wyrmslayer and free the slaves in order to turn the tide of war.

Trying to improve on the formula of Heroes, US Gold has added non- player characters (NPCs), set a time limit and bunged in even more monsters and magic for good measure. With the backing of TSR, the biggest name in role-playing, it can't have gone too far wrong.

Think you're up to the challenge? Dragons of Flame is out now, price £24.99.

Budget games are here!

MASTERTRONIC, the company which created budget software back in 1984, is to hit the 16 bit market with a new range of £4.99 priced games.

The first Amiga releases on the new 16 Blitz label will mainly be back catalogue classics like Little Computer People, Sorcery Plus and Roadwars, but new titles are promised, among them Speedboat Assassins, which looks like a Live and Let Die clone, and the intruigingly named Kelly X.

Full bike and board

GREMLIN GRAPHICS is pretty excited about Skidz, its new skateboard cum BMX bike game. Coded in Germany, Skidz was first written on the ST and then ported over. But the programmers soon realised they could so much more on the Amiga. So they did.

Skidz now uses up every square centimetre of your monitor. Rewritten to make the best use of a full PAL overscan screen, it puts the, erm, other version to shame.

The gameplay is a simple but addictive race around the isometric streets doing tricks and avoiding obstacles, animals and pedestrians.

The early version shown to *Amiga Arcade* was fast and furious. Check it out around mid November.



Skidz uses a PAL overscan screen on the Amiga

It's a funny old game

KICK OFF has been a constant presence in the Amiga Gallup top ten since last August. Anco has decided to capitalise on this success by releasing a strategy based follow-up, Player Manager.

The game will feature more than 1,000 players in a four divison league, each player being an individual with a unique combination of 11 attributes and skills.

A modified version of Kick Off taking full account of managerial decisions will be used to put them to the test. As the manager you will be able to choose either to play in your selected position or control the player nearest to the ball.

Alternatively you can relegate yourself to the dugout and study the match in depth.

When to hang up your boots for good to concentrate on a managerial career will be the most difficult and painful decision of your life.

"Player Manager attempts to bring the everyday life of a soccer boss, his talents as a manager and a player, into sharp focus", Anco boss Anil Gupta told *Amiga Arcade*. Price £19.95, release date mid November.



Setting up team tactics

Slidin' the back out



Selecting your car, circuit and driver

ZZKJ was the man for the job. It is doubtful that anyone else could convert an arcade game as mind-numbingly taxing as Power Drift. This stems from his training as a chip designer and love of a challenge.

Zareh (that's what the first Z stands for) doesn't like easy programming jobs. "I get bored," he told *Amiga Arcade*. "Because I understand how the silicon works, I can program at the lowest level, although this can cause some problems. I found a bug in the blitter that no one I've spoken to knows about".

It is these qualities, and the excellent Super Hang-On conversion, which led Activision to call on him again.

Before starting to write the code, ZZKJ played the game again and again until he got really good at it and knew the subtleties of the gameplay by heart. Then he set about satisfying the sometimes opposing objectives of playability and accuracy.

"Limited memory was the main problem, there are five courses, 12 drivers and 27 circuits. Squeezing that lot in meant something had to go. That something was rotation, because tilting the screen took three times the number of sprites and didn't have much effect on the gameplay".

There are a couple of touches only the Amiga makes possible. The score and extended time text use hardware sprites. ZZKJ's special technique which uses sprites instead of solids to emulate a 3D vector world benefits from the power in the Amiga Blitter.

The sky doesn't use the copperlist because the arcade version only has two sky colours. Driver characteristics have been faithfully replicated – the woman is the fastest of the 12 drivers.

The result is exciting, driveable and an accurate representation of what happens in the arcade. Practise with this at home and you will be able to impress the girls at the seafront.

Armless fun for all

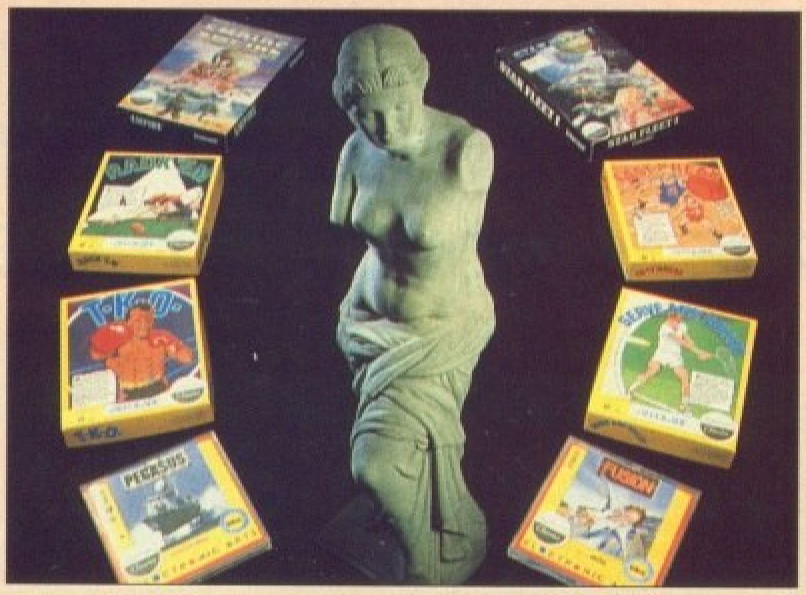
ELECTRONIC ARTS has launched three more Amiga products on its Software Classics label, all of them strategy games.

Fusion, which looks more like a shoot-'em-up, was written by Bulldog, the team which produced Populous.

Starfleet, which was previously unreleased on the Amiga, is a bit like Elite with a great 3D landing scene. It's really heavy on strategy – for instance, you have to choose what life-forms you want all your crew to be.

The last of the trio, Empire, needs no introduction. It has been hailed as a true strategy classic by almost every games magazine in the world.

In the shops now at £9.99 each.



For the Amiga, fusion, Starfleet and Empire make it on to the Software Classics label

Over The Edge

IN last month's issue in the review of The Edge's new game Winter's Tail some personal remarks were made directed at Dr Tim Langdell.

We accept that these remarks were totally uncalled for and insofar as they might have been read to be a slight on Dr Langdell's character or on The Edge's reasons for licensing the Garfield character, we unreservedly apologise to Dr Langdell and all at The Edge for these remarks.

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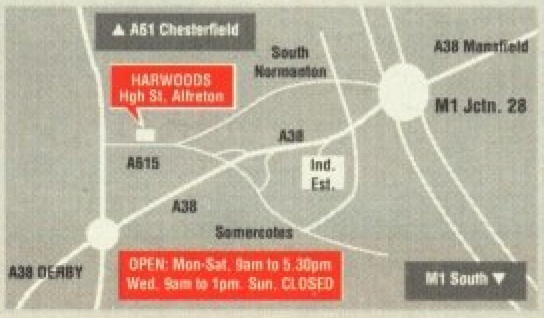
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STORMLORD

There's a killer on the road



For further details see Kama Sutra page 116



I know I booked Economy Class, but this is ridiculous

SOMETHING terrible has happened in Fairyland. I mean to say, evil queens, incessant thunderstorms and various species of itinerant thugs and no-goods is one thing – a man can learn to live with that – but locking up all the cute nymph-like fairies in outsize bubbles is another bowl of washing up completely.

Your mission, and Mr Stormlord's, is to rescue said nymphettes and ultimately engage the wicked queen in battle for the party leadership.

You get a seemingly generous nine attempts at regeneration should you fall foul of the local flora and fauna, but you must also take into account the fact that Stormlord is a bit of a fairy himself – he is easily driven down the dusty way to death when confronted by anything more dangerous than a blade of grass.

I don't know, in the old days a hero would be knee-deep in gore with savage steel whipping the gullet out of everything that drew breath, and here we are with a bearded old pansy flicking little bits of pixie dust around the place, without much effect I might add. Caution is definitely recommended.

Rather than wait for a break in the weather you'd better get going, because you only have a day to save the universe.

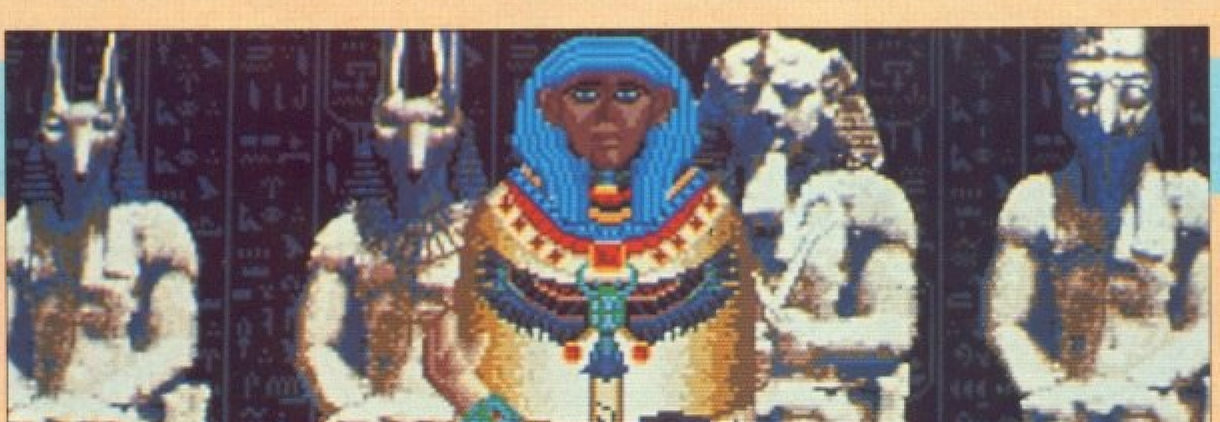
By way of public transport, the fairy folk have enlisted a giant eagle which can be picked up at any convenient terminus. It may be a bit rough and ready, but it's a damn sight more reliable than BR.

I must say, Fairyland isn't exactly what I expected. It seems to be exclusively populated by irate dragons, poisonous caterpillars, silly old men with wands, murderous goblins, carnivorous plants and some strange lifeform which baffles any effort at biological definition. Sounds a bit like Format's office.

All of them are, of course, deadly and only some can be dispatched with liberal sprinklings of pixie power.

Gameplay will test you to superhuman levels of cunningness and dexterity as you balance on a daisy petal preparing to leap over a sticky, tricky venus plant or run the gauntlet of the dragon woods in

DAY O



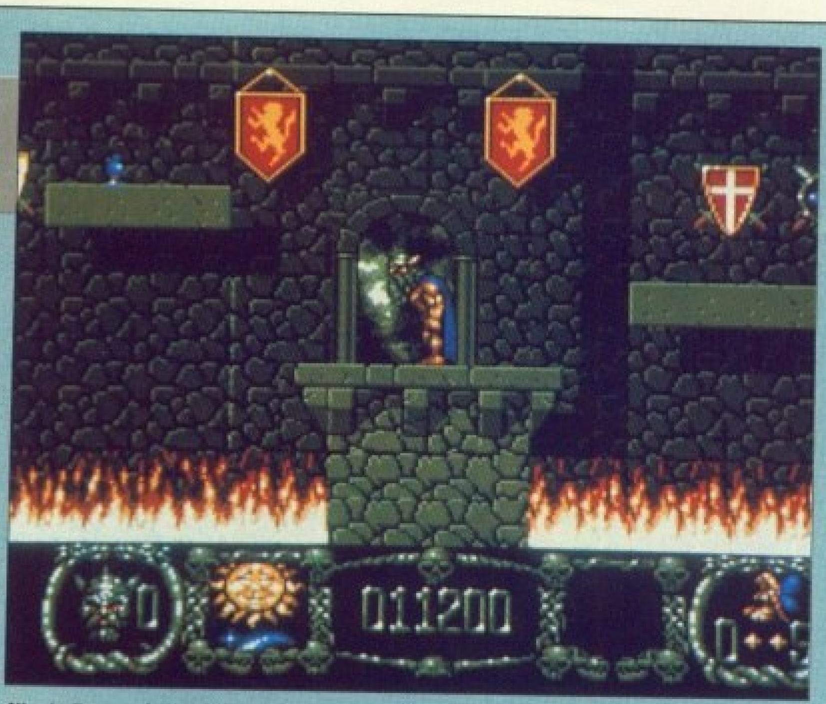
While you're down there...

TIMES change very quickly. Less than a year ago, if we'd seen a game with digitised graphics and sound, we would have thought it darn hip. Now it seems that a game without digitised effects is out of the ordinary.

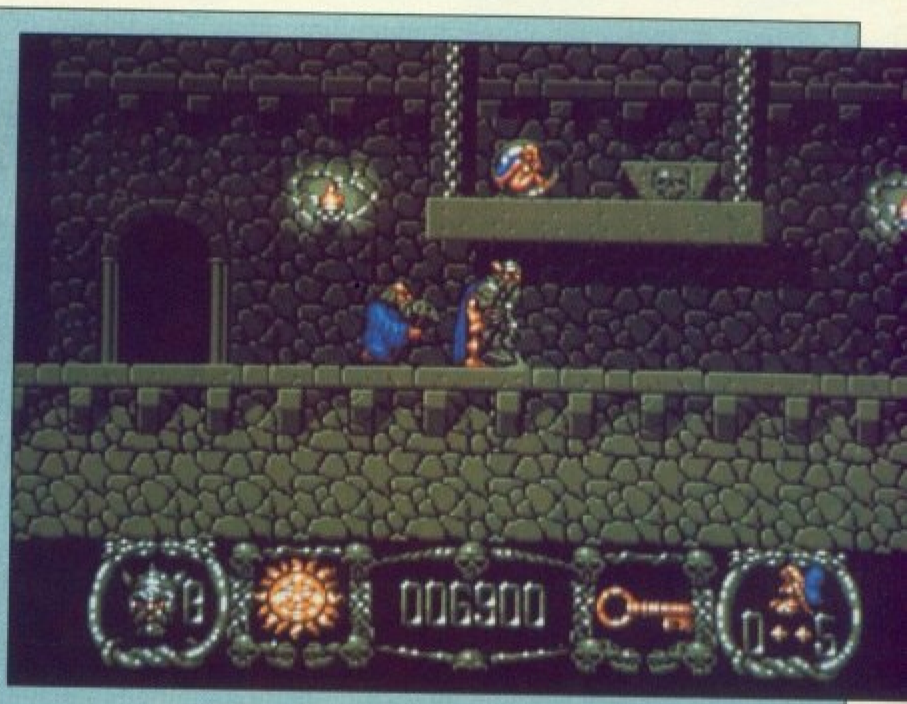
By this argument, Day of the Pharaoh is pretty mundane.

Basically, all is not well in Ancient Egypt, whose inhabitants could never fathom how they'd earned the "Ancient" title. The old Pharaoh died many years ago, but all his heirs suddenly vanished, to be replaced by real bad 'uns faithful to Seth, the god of the desert, who, incidentally, is no relation to Gateau, the god of the dessert.

You are but a young fellah – Egyptian for peasant, believe it or not – who, unbeknown to every-



King's Cross tube station on a quiet day.



Ever had that feeling there's a blue wizard behind you?

the height of the egg-laying season.

There is an overwhelmingly puzzley rather than gamesy feel to Stormlord – time limits are tight and many routes lead to inescapable and infuriating dead ends – those pixel-precision jumping skills you have nurtured over the years will come in very handy.

The most brain-pummelingly amazing, brilliant and wonderful thing about this game is the sound. Not only the terrific music, but also the awesomely staggering sound effects, which are so crisp and precise you'll believe someone has sneaked a CD in the back of your monitor. All this is not at the expense of the graphics, which could also be described with a long list of superlatives.

Good use of colour breathes life into Fairyland, especially some of the statues, which you may feel compelled to go past as often as possible, nudge-nudge, wink-wink, know what I mean.

Stunning background animation combined with sound effects build up a very palpable atmosphere which is hard not to respond to.

Hewson and Raffaelle Cecco are once again showing the form that won them the adoration of millions on the C64. Fairies really *do* give you better value for money.

Mild Green

Stormlord
£19.99
Hewson

Sound
Graphics
Gameplay
Value

Overall – 94%

Excellence

Y OF THE PHAROAH

Seems like a lifetime

one, including yourself, is actually the son of the old king and rightful heir to the throne.

Amon-Re, sun god and sworn enemy of the evil Seth, grants you a ship and a fairly large sum of money in order that you should regain the throne that is rightfully yours. You can only do this by trading and general rat-racing. As luck would have it, Egypt isn't a particularly stable place – there's nearly always good money for the right goods in the right place.

Yup, it's like trading in Elite, except more complex and not so much fun. Also, Elite hasn't got the rather unconvincing digitised graphics and really, really irksome tunes that Pharaoh has. But there you go.

As you navigate your way around the waterways always look the same. It's a case of Dodge the Rocks in the most mediocre fashion. Sometimes, if you're really lucky, your ship is set upon by Phoenician pirates, which you must beat off with a paddle.

This bit is like some deranged Game & Watch because there is virtually no animation and the digitised Eeks! and Wahs! of the pirates are hilarious.

Once in port you can gamble at the camel races. Rather than being a competition to see who can smoke an acrid ciggy the quickest, this is a standard Daley Thompson type effort. It's also deathly dull.

For a bit more excitement you can declare war on the peasants, who are revolting in both senses. For a little more rapid social advancement you could always take yourself a wife from the gentry, but don't expect the dowry to be small. In this department your otherwise shrewd and cripplingly expensive business advisors aren't of any use.

This is a complex game, one that will take a long time to get very far. Unfortunately, the initial stages are so stunningly ennuie inducing that it would be a truly Herculean (sorry – don't know any Egyptian heroes) task, maybe even requiring the patience of Job as well, to get anywhere useful.

Even though there was a valiant struggle, this reviewer succumbed to the background boredom. Maybe if you were a chronic insomniac, who enjoyed a long term challenge, didn't mind rather badly edited digitised sound and graphics with a dash of ropey translation to boot, and who also had two drives to make the gameplay less awful, you might be able to put up with this game.

But as I'm not, and I don't think you are either, wild horses couldn't get me to recommend it to you, to end rather neatly on a badly mixed metaphor.

Stewart C. Russell

Day of the Pharoah
£
Rainbow Arts

Sound
Graphics
Gameplay
Value

Overall – 23%

GRIDIRON!

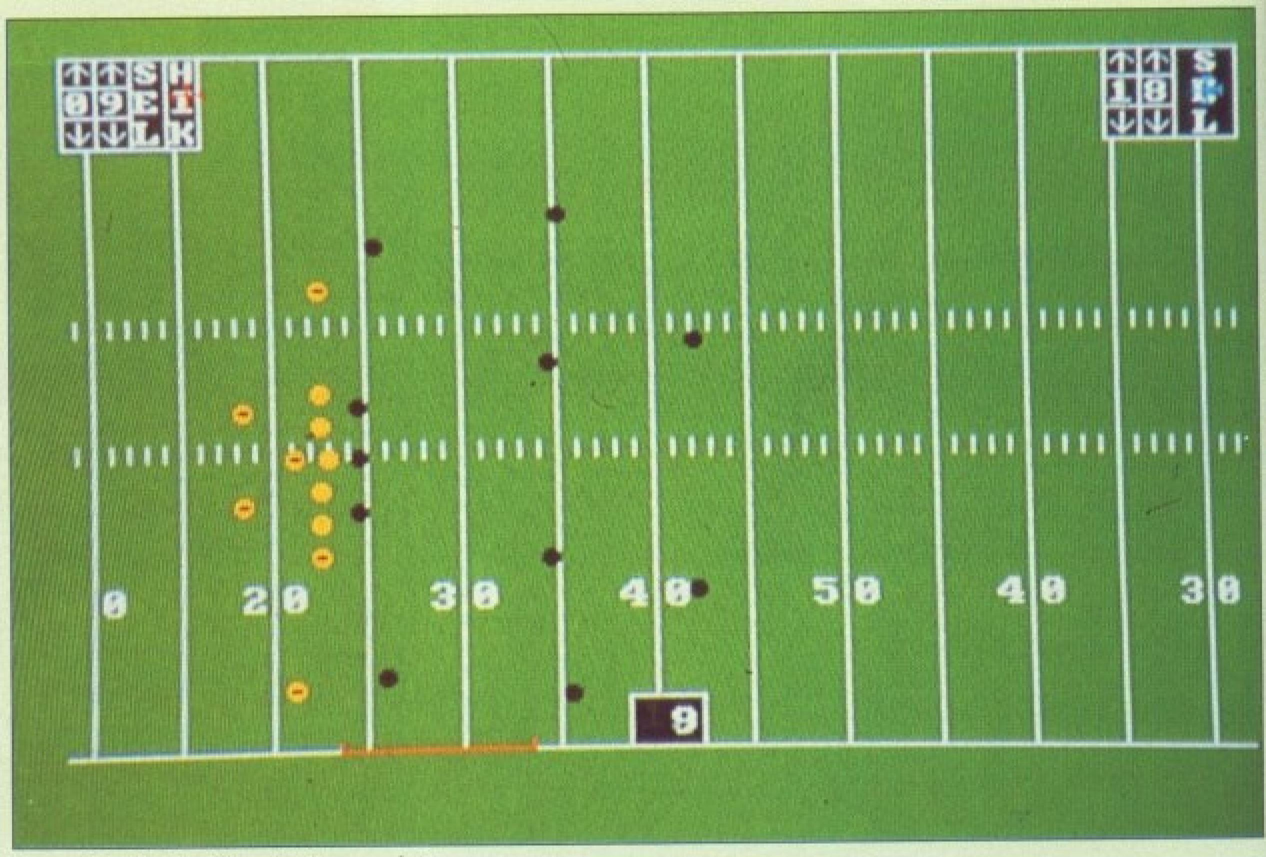
It's the Orangeblobs v the Blackblobs

AMERICAN Football is low in my list of favourite sports. The sight of several hundred men dressed up in ridiculous costumes has always, in my opinion, been a good argument against colonial independence.

The manual goes on at great length about the various game options, but never goes so far as to actually explain the rules of the game. Things seemed bleak, and the prospect of watching Channel 4 on Sundays seemed my only means of finishing the review. However, by a great stroke of luck some friends popped in and demanded to see a game. As fate would have it, GridIron! happened to be in the drive. Several hours later I still couldn't separate them from the computer, as phrases such as "Turnaround on Downs" and "First Down!" reverberated off the walls.

Much to my horror I found myself slowly being drawn into the game. The rules started to make a crazy kind of sense. I started saying "Ohhh!" and "Ahhh!" when things became close.

Initial impressions were of total disbelief. Was this really an Amiga I was using? An Amiga with a custom co-processor and the best graphics available this side of a Risc chip? Yes it was. And what's more, an Amiga running a sports simulation from the people who brought us the incredible Wayne Gretzky Hockey.



Stopped on the 18 yd line, 1st Down and 10

But forget blitters and sprites this time, GridIron! shows you just what you need to see – 22 blobs masquerading as players moving around a pitch kicking the living daylights out of one another.

Sound is another matter. Throughout the game the digitised roar of the crowd rises and falls as the action hots up. When the Touchdown picture appears and your player bounces the ball off the turf, the spectators go totally wild. The umpire's whistle signals any interruption to play, and an announcer gives the latest game news over the PA system. Very atmospheric.

For the benefit of those who, like me, are new to the game, here's a brief run-down of the rules I have grasped so far:

1. A team consists of dozens of players, up to 11 are on the pitch at a time. Some of them have silly names.
2. Each member of a team can attack any member of the other team, with some minor exceptions, even if the referee is looking.
3. Each team has four attempts to get the ball moved 10 yards up the pitch towards the opposition's goal line. If they don't manage this, the ball is given to the other team, who have a go instead.
4. Points are awarded if the ball is successfully transported or caught across the goal line.
5. There are four quarters, each of 15 minutes. Thus a game can last two hours.

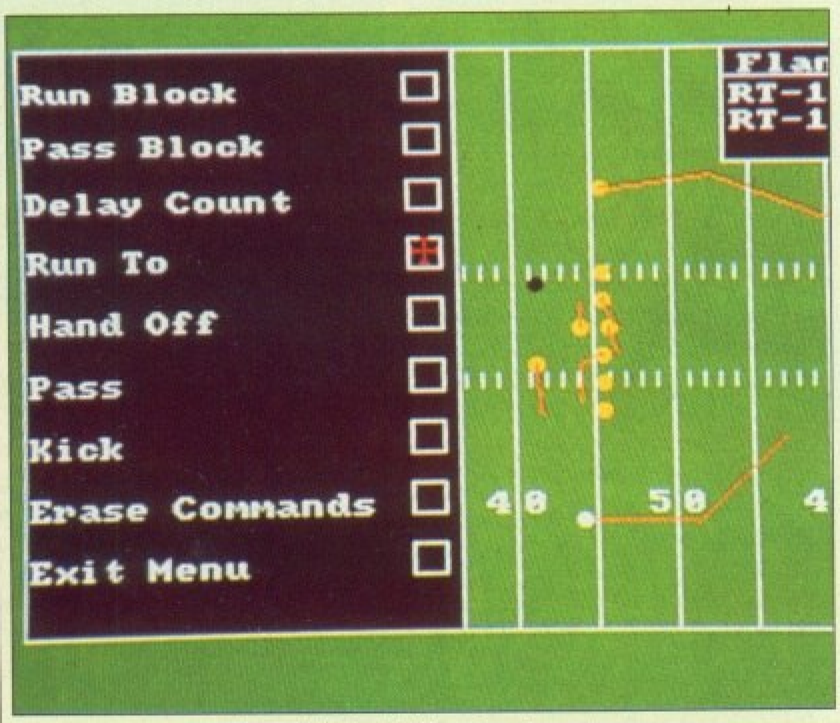
And you thought the rules of cricket were strange?

GridIron! can be played with a friend or against the computer. The two-player option is more fun, but really needs two mice to play properly. If you only have one mouse and a joystick, you will have to keep swapping over with your opponent. Very annoying. There is an advertisement in the back of the manual offering to sell you an extra mouse. Very tacky.

Each of the computer players plays the game independently, with his own direction, speed and momentum. You select from a predefined series of team movements at the start of a play, and each player gets on with it. Later you can create and save your own movement patterns.

If you are interested in American Football, or even if you only enjoy simulations and sports in general, GridIron! demands a look. You too could soon be shouting "Hup! Hup!" and not know why.

John Kennedy



Making up your own plays – hehehe, this'll confuse them

GridIron!
£24.99
Bethseda Toolworks

Sound

Graphics

Gameplay

Value

Overall – 78%

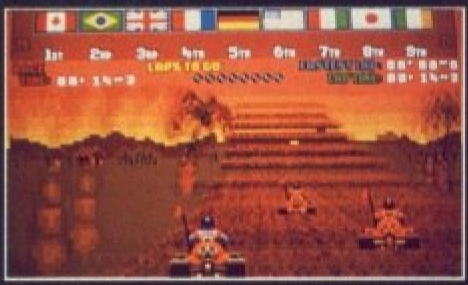

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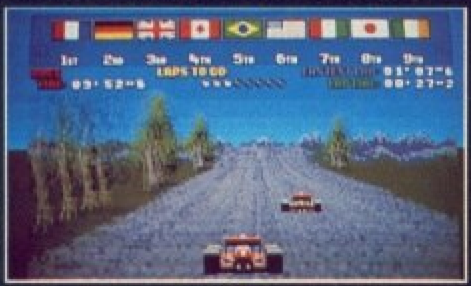




Choosing out of 12 competitions is just one of the many choices you can make.



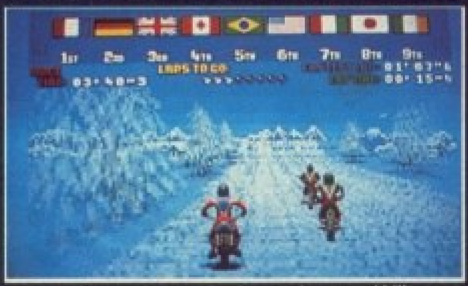
We'd forgive you for thinking you were in the Arcades.



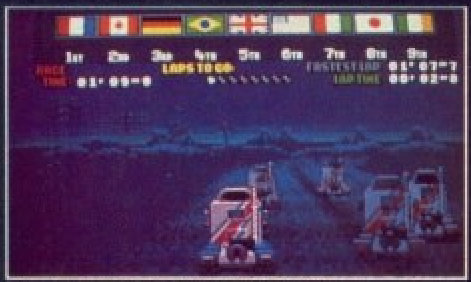
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ATARI ST £19.95 February '90

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DYNAMITE DUX

This could go eider way

SO I walked into the Blarney and Shamrock pub and ordered a drink. And as I was stood there I noticed a pig in a very small cage behind the bar, trying to get out. So I says to the Irish barman, "What's the pig for?" And he says, "Ah, well, you see, the last customer complained we had no pork scratchings."

Who was I to argue?

Strangely enough, when I got home I found they had sent me a game with pigs in it to review. It's a small world, I thought as I started downing the bottle of brandy required for reviewing mindless arcade conversions.

Ah, I'm a duck. Quack quack, as they say in duckland. And here are my friends, Pin the duck and Lucy – a piece of curvy fluff if ever there was.

Oh no, here comes Achacha the Great, who, besides sounding like a Latin American dance, has whisked (not stirred) away Lucy to do all sorts of horrible things. I musht wescue her, mefinks drunkenly, so off I set.

There are six levels with two bonus levels of Dynamite Dux, a Sega coin-op converted by Activision. This isn't many when you get credits to continue games with, and even I in my uncoordinated condition managed to stagger through to level four on only the third attempt.

It's a sideways scrolling saga, right to left, though there are sections where it pays to go up and down ramps, which introduces diagonal scrolling. Very smooth it is too, but unfortunately it's also very slow. So slow it has a detrimental effect on the gameplay.

Bin the duck, for that is thee, sets forth on a very strange journey through a rather hazard filled town. Chomping mouths dance along the pavement like Chinese firecrackers, while Zebedee-like creatures on springs hop around like demented one-legged grasshoppers.

A marker shows how far through the level you've managed to get. Expect something nasty at the half way point as well as at the end.

Bin is armed initially with only his fist, but alas this is one boxer who doesn't dance like a butterfly and sting like a bee. He dances like a bricklayer.



You better win this or the ref will make you finger lickin' good



Oh no, it's moose's head

There are three types of punch – regular pow, hold the fire button down and twirl the arm for big boy POW, and hold that fire button down until the sun goes supernova for mega POWWWW!!!

As you stop moving when the arm starts twirling, Bin has probably bin biffed by this time. Ho-hum, search out the extra weapons.

The most crude extra weapon is the armament of your average rioter, a supply of rocks. For the nasties further on you're more likely to need the exploding bombs with faces, which have a wonderful explosion, the flamethrower or the rocket launcher.

The homing missile rocket launcher is almost as good as it gets. The big problem is that every time a sprite runs into you – which is quite hard to judge as there is no depth to any of them, yet there is depth to the playing area – you drop any weapon being carried.

If something like the snake happens to be treading all over your feathers, as soon as you recover you are hit again without any chance to pick the weapon back up again. It can be very irritating.

The animation and the graphics of the characters, duck and the bad guys are all very good, but the mediocre backgrounds detract slightly. The music is very jolly and arcadish, but can grate – at least there are different tunes. My favourite is the Bongo special on the jungle level, which is pretty good.

The problem with Dynamite Dux, which scores well in the graphics and sound department, is that it can be irritating in some places, and too slow in others. That apart, it's a reasonably good conversion.

Now, if you'll excuse me I'm off in search of those pork scratchings to round off the brandy.

Duncan Evans

Dynamite Dux
£24.99
Activision

Sound
Graphics
Gameplay
Value

Overall – 71%

STRIDER

More of the same

WITH a metallic ching and a sampled yell of "Paw!", an animated figure runs across a landscape, chopping in half anything that gets in its way. Kill everything that moves and don't worry why.

Controlling this figure is quite exceptionally frustrating. She – yes, it's a girlie – seems to have an incredible urge to jump 20ft in the air, doing so regularly if you don't point your joystick in exactly the right direction.

Making a game challenging to prolong interest is all very well, but if thing get impossible no one will want to play it in the first place. We all know that getting the balance right is tricky, but Strider is close to the edge.

Technically, what we have here is a long way from being state-of-the art. The playing area is a small rectangle way up the screen; the scrolling is almost awful.

Diagonal movement has been achieved by first moving the screen horizontally and then vertically in quick succession, with the result that the figure flashes between these two positions as it runs – the sign of a straight ST port caught red-handed. Which is a pity because the landscapes are all very well drawn and change sufficiently between levels to add that feeling of exploration.

After the initial frustration of getting acquainted with the controls, you can start to appreciate the game.

Strider reminds me very much of R-Type – you battle your way through several groups of baddies, picking up extra weapons until you meet the bigger-than- average baddie who lives at the end of the screen. In time honoured tradition, this bigger-than-average baddie needs more-than-usual hits to die.

Once you have done this, unless there is an even nastier bigger-than-average baddie to dispatch, you can move on to the next level.

Sometimes the baddie is just a large sprite, sometimes it's a bouncing laser beam. Always it only needs a bit of dodging and extra shooting. Not what you might call intellectually stimulating, but fun in a nihilistic kind of way.

In between each level you are given words of encouragement from your enemies, along the lines of "This is it, you're going to die". These are accompanied by some Polaroid Instamatic photographs taken with a camera one of the programmers must have got for his birthday.

A simple and annoying tune bleeps its merry way throughout, accompanied by the aforementioned metallic clang and gutteral cry as you wave your sword around in a threatening manner.

The speech at the start of the game which says "You dare to fight me?" soon has you shouting back some suitable responses. Come back the AY8910, all may be forgiven.

Enough. Strider has plenty of puzzles to keep you playing, all of which are of the "remember what to do here" variety. If it had some decent programming, it would have been good.

John Kennedy

Strider
£19.99
Capcom

Sound	
Gameplay	
Graphics	
Value	

Overall – 72%



Whoops



Now that's what I call an explosion

It's a girlie, honest it is





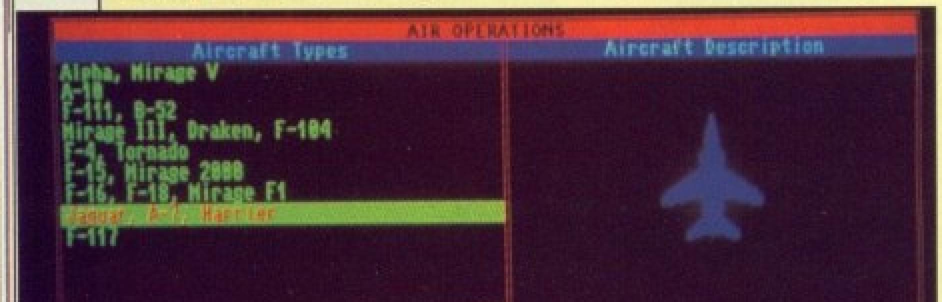
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RED LIGHTNING

Apocalypse Now?



Nothing in life is so exhilerating as to be shot at without result. (W. Churchill)



Ernie: Hey, look at all those people down there – they look like ants.
Eric: They are ants – we haven't taken off yet. (Morecambe and Wise)

UNTHINKABLE though it may seem, it *has* happened. Whatever caused it, whether by mistake or murderous intent, is now irrelevant as men and tanks line up either side of the great divide, waiting to pull the curtain on Armageddon. Whatever happened to the postwar dream?

What happened to all the nukes? Did the Green Party finally get their way and have them all destroyed? Did we shell out all that money to discover that Trident didn't work after all? None of these questions are answered in Red Lightning.

As the commander of either the Nato or Warsaw Pact forces it is your job to respectively save the world for democracy or save the world from democracy, with the help of your logistic talents, your cunning mind and, of course, a few hundred thousand foot soldiers, vehicles and planes, all armed to the teeth with death-dealing weaponry. I know whose side I'm on.

As the informed reader will realise, it will all develop into a battle of superior equipment versus superior forces. For some reason SSI assumes that the Sovs have initiated the aggression and that all the nice Nato blokes were at home with their wives and families when it started, so all three scenarios have the Pact at full mobilisation with the good old allies in various stages of disorganisation.

Battle takes place on an impressively large 54 x 54 hexagonal map covering Western Europe from Brussels to Gdansk and as far south as Munich, although some of it is sea, and naval battles aren't handled in this simulation. The display is colourful, easy to read and quite pretty.

Players take it in turns to move and assign orders to their units, each turn lasting 12 hours of game time. Nato forces always move last because of their more effective communication network, which can give them a distinct advantage as they can step out of trouble when they see it coming.

Air combat is directed by one of the menu options. Weather conditions are taken into consideration

SUPER SCRAMBLE

BMX, SFX, MSX – it's all the

ARGGH! What have we here? A defection from the Code Masters naming department? An update of one of the oldest scrollers of all time? A tutorial on cooking eggs? A game about motorbike scrambling?

The latter is nearly correct. Super Scramble Simulator is really motorbike scrambling with one player. As everyone knows – or at least should know – that scrambling is a massed-start race, the game would be better called Super Trials Simulator.

Great attention to detail has been applied to this game, so much so that all of the actual game data lives on the second disc, with all the intros and tunes on disc one.

Instead of being purely two-dimensional, SSS dabbles with the other in a split screen display. The majority of the screen is the side on display, where the actual tricky bits are done, while a tiny strip underneath shows the overhead position.

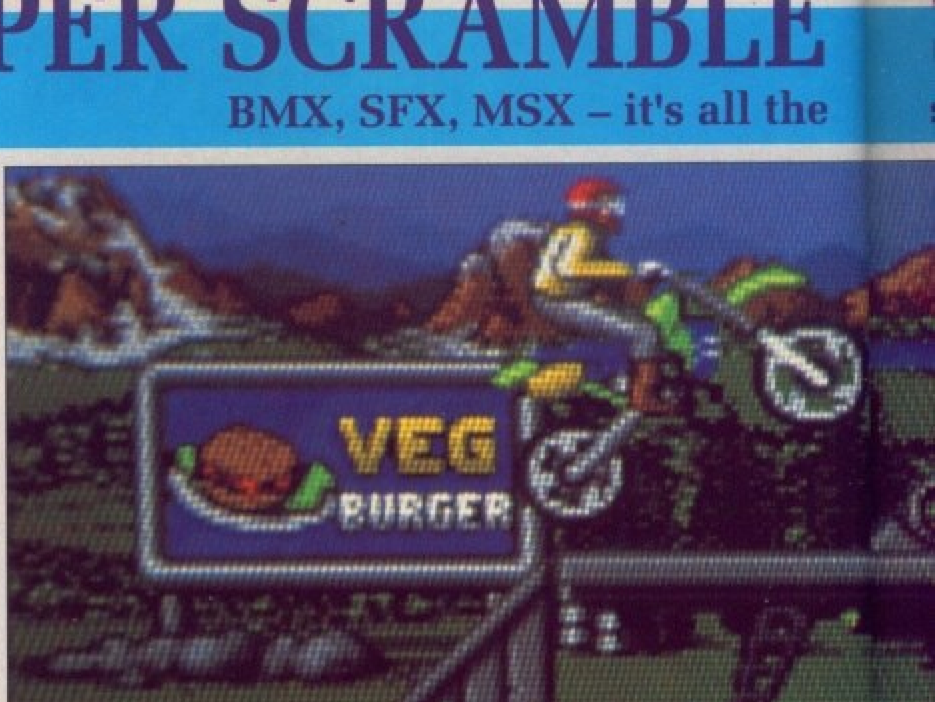
This is only of use where narrow obstacles do not take up the full width of the course; unfortunately that's the time you need your eyes glued to the main display.

And as Gremlin has been incredibly lazy, the screen is 22 per cent smaller than it should be, so each display is depressingly weeny.

The game is fairly standard stuff, much the same as KikStart gave us all those years ago on the C64. As in real trials, making mistakes (falling off) costs time, and the time limit is short enough as it is.

At least we're not left mystified by why our homunculus has just made like a projectile – SSS dispenses with the animation and prints up exactly why your time limit has been shorn of seven seconds.

What really annoys is that the SSS bike doesn't quite behave like



Up we go... must be those soya beans I had for lunch

real life. You land on the back wheel, time loss. Land on the front wheel, no time loss. Back in the real world you usually lose first steering, then control, followed by balance and several ounces of flesh, by landing front first. Ouch.

The graphical detail almost merits its description in graphic detail. The scoreboard has a collection of bystanders who have a large repertoire of moves, each subtle and easy to miss.

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Amiga Computing Excellence

and the full range of modern combat aircraft is supported.

Other special operation features include deployment of parachute regiments, special forces and tactical battlefield missiles. Concurrent campaigns, which you do not control but can influence, run in Norway, Iceland and the sea around Europe.

The different levels and "realism toggles" provide the scope for a variety of game types from the purely strategic to real in-depth unit management. A wonderfully concise and yet informative manual tells you everything you could ever want to know – except where Mr Benn lived – and even supplies some of the formulae the combat algorithms are based on.

The whole war experience is driven by mouse with the aid of pull-down menus. Some annoying features exist, like the inability to change your mind about troop movements, but I suppose if I complain SSI will only say that it adds to the realism of the simulation.

The computer is a worthy adversary and doesn't rely on cheating to bolster its overall strategy. It can occasionally get a bit thrown if you attempt something impossible or unusual, like a massive airlift of troops miles behind enemy lines to cut off supply routes, but it recognises and deals effectively with all the big plays.

With such a range of skill levels and great playability, Red Lightning is suitable for both novices and hardened warmongers. SSI has set the standard for strategy games on the Amiga.

Lucinda Orr

Red Lightning
£29.99
SSI

Realism	
Strategy	
Gameplay	
Value	

Overall – 92%





The quickest way of ending a war is to lose it. (G. Orwell)

LE SIMULATOR

the same to me



Super Scramble Simulator
£19.99
Gremlin

Sound	
Graphics	
Gameplay	
Value	

Overall – 63%

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a strong green feel to them, which is strange for a sport where one rider can cause more erosion that 20 adrenalin- crazed mountain bikers ever could.

It's strange, but virtually every racing game has a phenomenal tune – or at least a good 'un – and then a variable pitch rasp for the engine note. SSS, tune-wise, is phenomenal, but raspwise, tends towards vanilla.

Assuming for the moment that all the preceding criticism hadn't happened, there's still one serious fault. It's infuriating. You think that you've got the hang of a sequence of moves, and you're really beginning to have some industrial-grade fun, when a tiny slip of the stick loses you time and confidence.

This we don't need. We could always weigh this against the intelligent decision to read both discs simultaneously with a two drive systems. OK, so why do we have to stare at a blank screen while the data loads? Your guess is as good as mine.

SSS impresses the senses – there's no doubt about that. But it's either too badly planned or is too difficult to get into. The gameplay's stiffer than an uprated monoshock, which is a pity, because with a little more freedom, SSS would have been good.

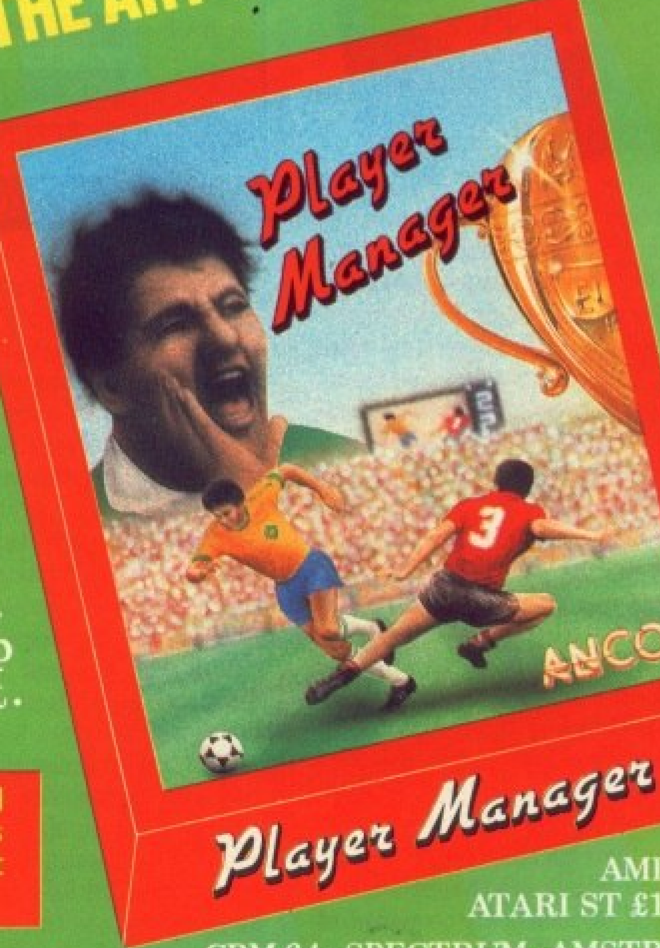
Stewart C. Russell

Player Manager

BY DINO DINI

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Bring Back The Glory Days, the brief of the newly appointed PLAYER MANAGER, an International class player, as he takes charge of a third division club. His success depends on four distinct aspects of the game.

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PLAYING SKILLS OF THE MANAGER

This part of the game is a refined version of the KICK OFF, retaining it's pace, flavour and the universally acclaimed game play. Play in your position or control the nearest player. The first option combined with a tailor made tactics can play havoc in the opposition goal mouth.

MANAGERIAL SKILLS

Devising winning tactics, acquiring players with right skills from the Transfer market and selecting a well balanced team is the test of his Managerial skills. When to hang his boots up is the toughest decision he has to make.

TACTICS

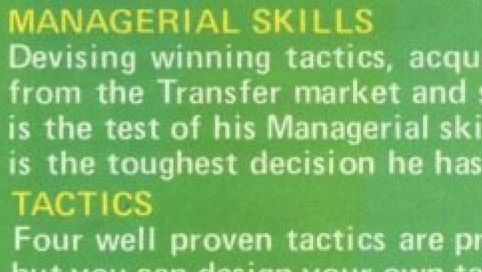
Four well proven tactics are provided to suit most situations but you can design your own tactics. See the tactics in action using the Ray Trace facility.

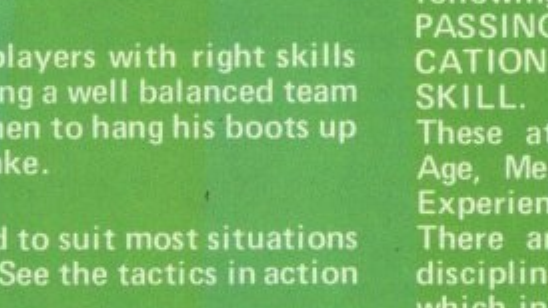
THE PLAYERS

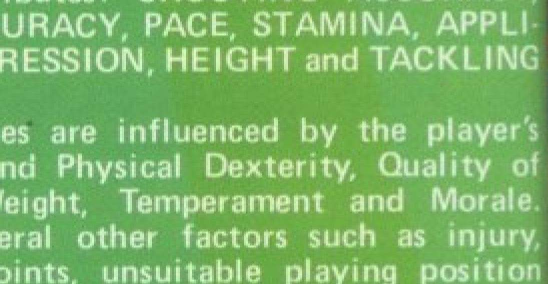
Over a thousand players in the four division league. Each player with a unique combination of the following attributes: SHOOTING ACCURACY, PASSING ACCURACY, PACE, STAMINA, APPLICATION, AGGRESSION, HEIGHT and TACKLING SKILL.

These attributes are influenced by the player's Age, Mental and Physical Dexterity, Quality of Experience, Weight, Temperament and Morale. There are several other factors such as injury, disciplinary points, unsuitable playing position which influence a player's performance.

Hosts of other factors like referees, injuries, disciplinary problems, team morale etc. can lay to waste the best laid plans of a manager. The PLAYER MANAGER brings everyday realities of a Manager's life, his talents as a manager and a player into a sharp FOCUS. THE FOCUS IS ON YOU.







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TIME TRAVELLER: FUTURE WARS

He digs deepest who deepest digs

Amiga Computing Excellence

WHAT is the secret identity of this superhero? Is it Ed, the high flying executive? No. Is it Armitage, the brilliant washbasin? No. Is it Joe, the mild mannered window-cleaner? Could be.

Life as a window cleaner isn't much fun. Tired of cleaning in the sunshine or staying home to watch the rain? So what are you going to do about it? Well, for a start you could do something about Ed, your fascist boss on secondment from the Waffen SS.

You just weren't cut out for following orders. Stand up to him – or better still run away, get away, far away. But where to?

Without giving too much away, it is fairly obvious from the title that there is going to be some sort of time travel involved – plus some trouble perhaps at a lesser known publishing house – so mapping may involve donning the pointy ears and taking a correspondance course in non-euclidian geometry.

Thus you embark on a journey which will pit you against aliens, spear weilding guards, savage chickens, mechanical monsters, swamps and the inevitable mad monks who will beat you to death as soon as pray for you. Better remember to take a packed lunch.

If you think a Wimp adenture is one where you must find a cure for your acne or rescue your pet hamster from the top of the wardrobe, then check this out.

All actions are performed with the mouse. Position the pointer anywhere in the play area, click the button and your character will move towards it. Not only that, but it does it intelligently, avoiding obstacles where it can.

The mouse can also select options from a set of text gadgets for the manipulation of objects. For example, if you choose Examine you will get a roving crosshair which will identify any objects it passes over. Further information is given by pressing the left button. Be sure to examine everything very thouroughly – some objects are very small indeed.

In a similar way you can take, use or operate any object on the screen or any of the objects in your inventory which pop up as text gadgets whenever relevant.

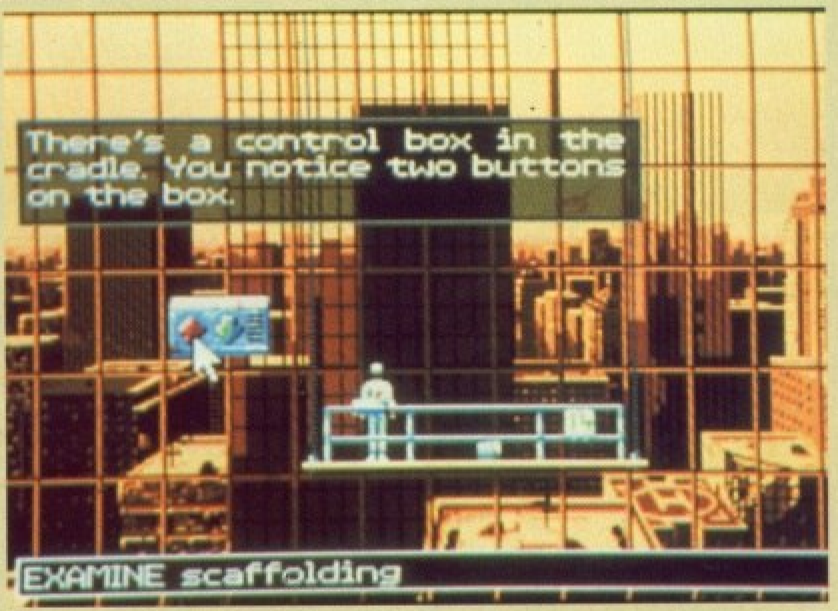
Graphically the game is wonderful, as you might expect from the same French programming team that brought you Bio Challenge. The play area varies in size, adding variety and creating some very nice effects, especially the screens which have been edged in with silhouettes in the foreground. All that and animation too.



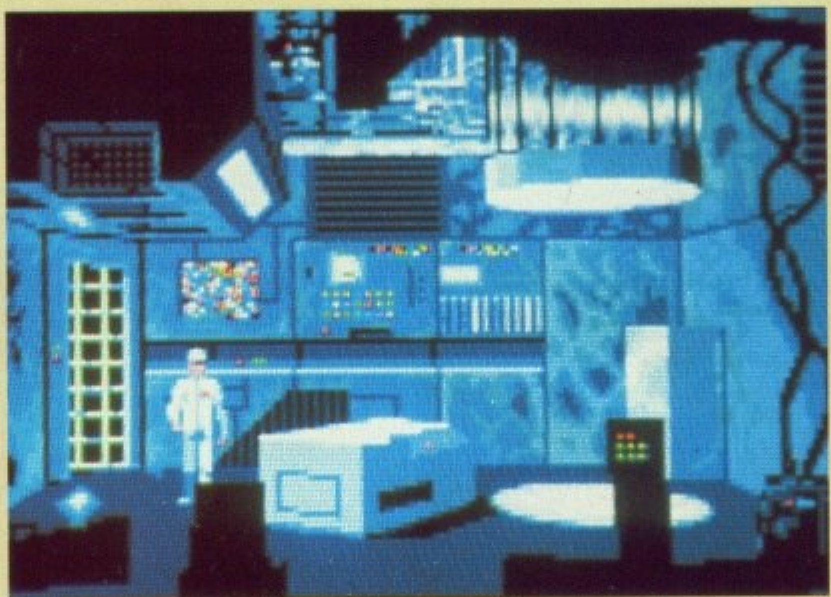
To get past the wolf you'll have to test its mettle

From a puzzle point of view, Future Wars is tough. A few of the objects are pixel-sized and microdot precision is needed to negotiate some of the obstacles you face.

Speed is also a factor – one problem requires you to plot out your route well in advance if you are to deliver the goods on time, and even then you've only got about a 50 per cent chance.



Eeny meeny miny mo...



Looks like a photocopier, but it's really a time machine

If you have a death wish, you have a choice of around a couple of hundred ways to die, all of them quick but not always painless. (Well, some of them brought tears to my eyes.) With about 100 locations, a quick sum will tell you that you are in constant danger.

The abundance of routes to a swift demise and the policy of keeping the player in the dark not only breeds paranoia but also helps to keep the game alive as you progress through it, striking the happy balance between frustration and boredom. You honestly don't know what's going to happen next.

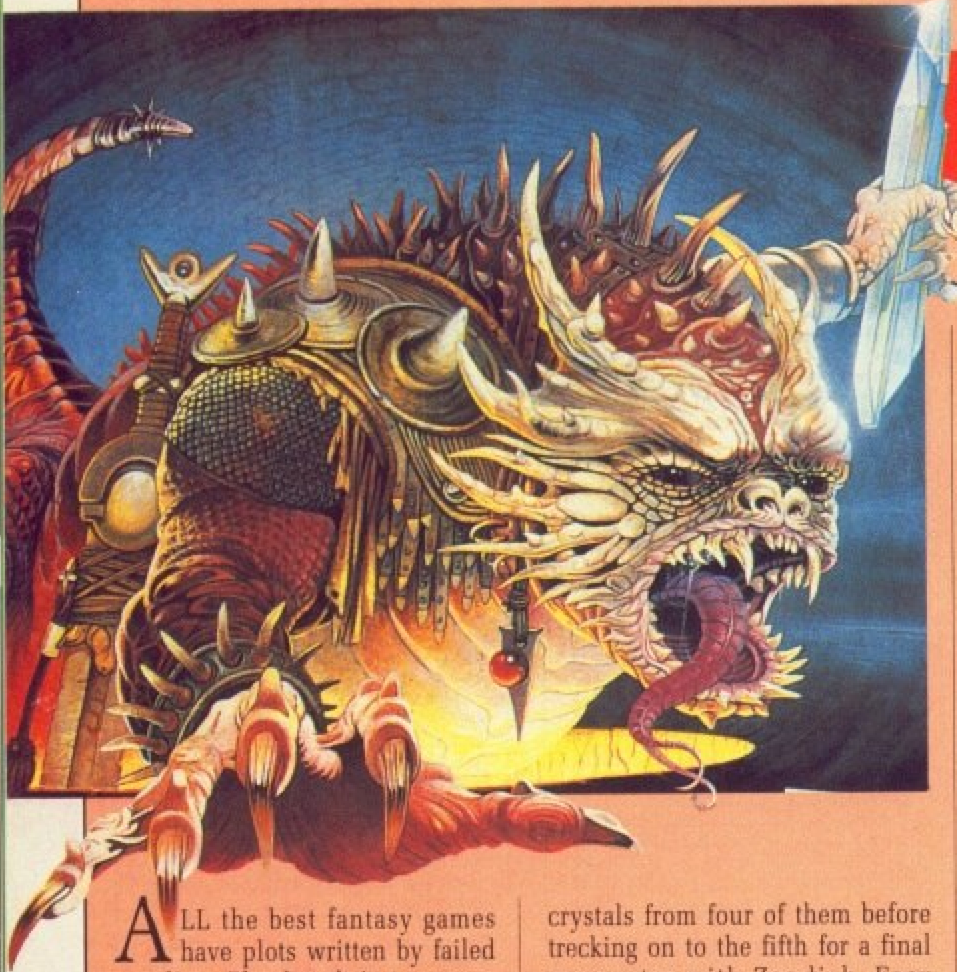
Future Wars and the Cinematique adventure system may owe some of its design to earlier efforts such as the Sierra On-line series – for example the character's movement directed by the mouse pointer – but it is several miles further along the path to icon driven adventure enlightenment. Nice One.

Green

Time Traveller: Future Wars
£24.95
Delphine

Aura	
Story	
Gameplay	
Value	

Overall – 93%



BLOODWYCH

Is this Dungeon Master too?

ALL the best fantasy games have plots written by failed novelists. Bloodwych is no exception. This is a story of the Lord of Entropy, Zendick, and his quest to make life miserable for everyone except his friends.

It's sort of forerunner to the Tory Party, with you playing the equivalent of Neil Kinnock, the brave but witless adventurer out to stop the land from being subjugated for all eternity, including the weekends.

The objective is to storm the towers of Bloodwych and capture crystals from four of them before trecking on to the fifth for a final encounter with Zendick. Easy enough for experienced dungeon masters because, let's face it, Bloodwych is heavily derivative of the FTL game.

You start off by selecting one character from a selection of mugshots, if you go for the full game. There is the option to start off with four pre-selected heroes, but you will probably want to pick your own.

Supposing that you only have the one, you'll need to recruit other characters, but unlike Dungeon Master this isn't quite straightforward – people can be dumped from your party and others hired at any stage.

Recruiting someone demonstrates the communications side of the game. Down the left side of the screen, under the pictures of the characters, are various menus.

To recruit potential allies, you'll need to praise them, to assure them of their worth, and then boast a little, because they aren't likely to join someone who doesn't think very much of themselves. You can also insult people, should the fancy take you.

On top of these options for interacting with other characters you can ask their name, reveal yours, and inquire about artifacts, legends and rumours. You'll need to, so don't go chopping everything that you encounter – the kiss-my-axe style of play is going to leave you floundering eventually.

The last of the communications options lets you praise and admonish members of your own party and shout to attract attention.

Operating a party in Bloodwych is complicated, which is one reason why, when it comes to combat, everyone is fairly autonomous. If you praise a character of yours too heavily, he or she will act more and more independently.

This could mean that as you approach a shopkeeper to buy something, Butch the Barbarian will suddenly leap forward and chop him to bits. The counterpoint to this is that if you henpeck them too much they will never do anything independently that is useful.

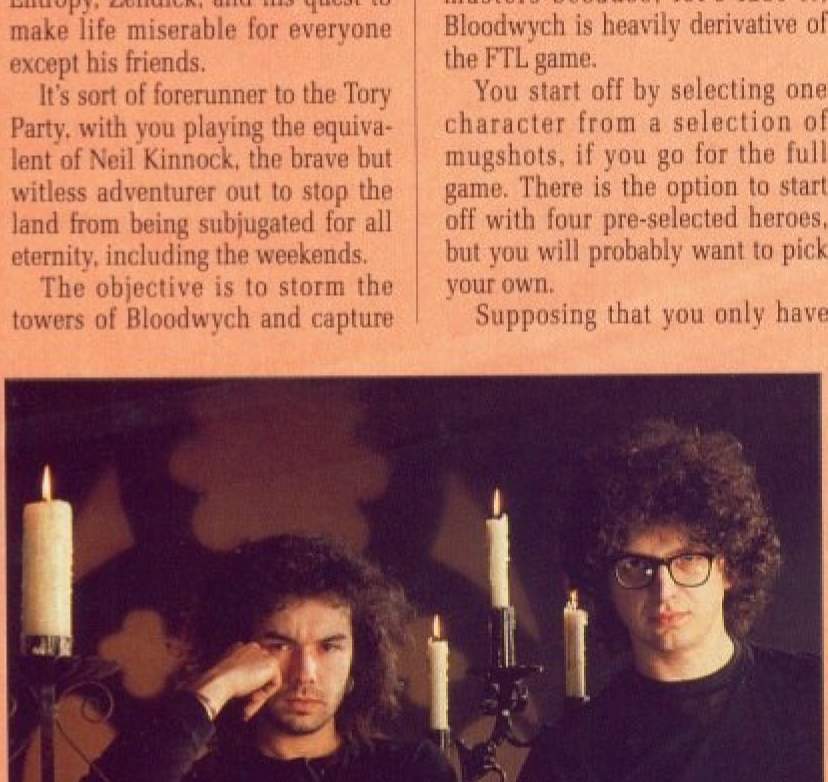
Each character has ratings for strength, intelligence, charisma and agility, and belongs to a character class – fighter, mage, assassin, adventurer – and a magic class, which are based on suits of cards, each representing a different aspect of magic.

You get magic points according to your character class which increase on gaining a new level. Learning spells from a different branch is hardest for a warrior and easiest for a mage.

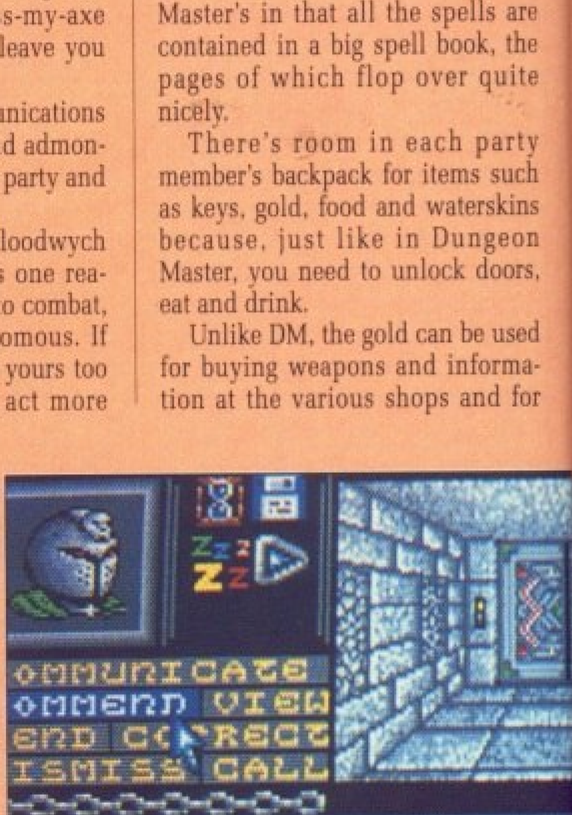
The magic system is interesting, and totally unlike Dungeon Master's in that all the spells are contained in a big spell book, the pages of which flop over quite nicely.

There's room in each party member's backpack for items such as keys, gold, food and waterskins because, just like in Dungeon Master, you need to unlock doors, eat and drink.

Unlike DM, the gold can be used for buying weapons and information at the various shops and for



Pete James (left) and a bespectacled Antony Taglione have been burning the candle at both ends to complete Bloodwych



It'll be all right on the knight

Bloodwych
£24.95
Mirrorsoft

Atmosphere	▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▯
Graphics	▮▮▮▮▮▮▮▮▮▮▮▮▮▮▯▯▯▯▯▯
Gameplay	▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▯▯▯▯▯
Value	▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▯

Overall – 81%

bribing travellers you may meet in the towers. This all adds to the enjoyment, and makes up for the small graphics.

Sound is pretty much a forgotten quantity, giving an almost library like feel to the game. I keep expecting the monsters to say Hush every time I scream Banzaii and attack them.

Bloodwych is obviously inspired by Dungeon Master, but it fails to emulate the 3D interaction and falls short of the standard of graphics and sound expected on the Amiga.

What really makes it is the two player simultaneously option. This lets you both have a party of four, who can help or hinder each other. You can actually watch another party turn and advance down a corridor.

Best of all you can trade items, so if you both go off exploring in different directions, you can rendezvous later and swap goodies.

Duncan Evans



TURBO

Kill for credit

Turbo
£19.95
MicroIllusions

Sound	▮▮▮▮▮▮▮▮▮▮▮▮▮▮▯▯▯▯▯▯
Graphics	▮▮▮▮▮▮▮▮▮▮▮▯▯▯▯▯▯▯▯▯
Gameplay	▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮
Value	▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▯▯▯▯▯

Overall – 73%

THERE'S many a game that relies too heavily on audio-visual presentation and way too little on actually being fun to play. There's also many a game that gets stuffed to the back of the software drawer quickly. Turbo's neither.

Many phrases describe the game, most of them end with violent and begin with words such as outrageously, senselessly and gratuitously. How else could you describe a race game where the major aim is to destroy anything else that moves, using only grenades, missiles and hub spikes? Cute it ain't.

And when you realise that each player gets less than half a 200-line screen to themselves, certain doubts arise about the quality of the production.

The excuse for a scenario is set in the uncomfortably near future. For no adequately explained reason, the populace have decided that commuting is dull and every other vehicle and pedestrian is fair game. Some unknown character has strewn the road with bolt-on goodies, all designed to get yourself noticed.

Missiles and grenades fire forwards, the only differences being speed and range. Oil causes anything behind you to lose control, while hub spikes knock out the competition at the sides.

Closet kamikazes are also catered for with the turbo wheels, which allow extreme speed at the expense of any control whatsoever.

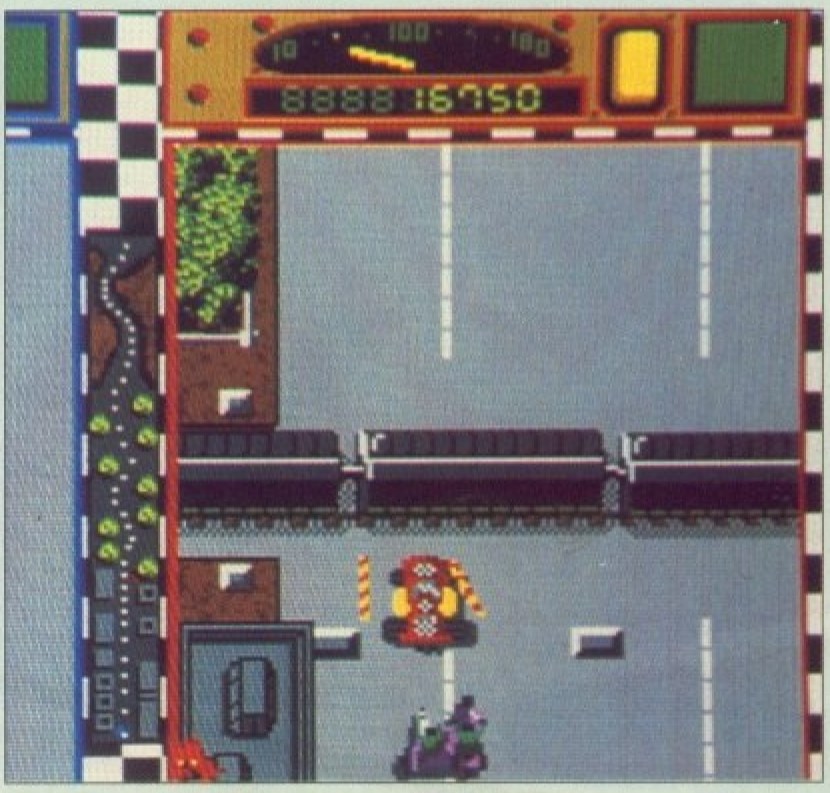
The police aren't happy about all this unrest and will try to stop you whenever they can. Certain enterprising pedestrians lob grenades, but with a shriek, a splat and a splash of gore they are gone. All the other vehicles are either obstructive, offensive, or all three. Like most of suburban America, there's a level crossing every few miles. Hitting trains hurts, but they can be missiled.

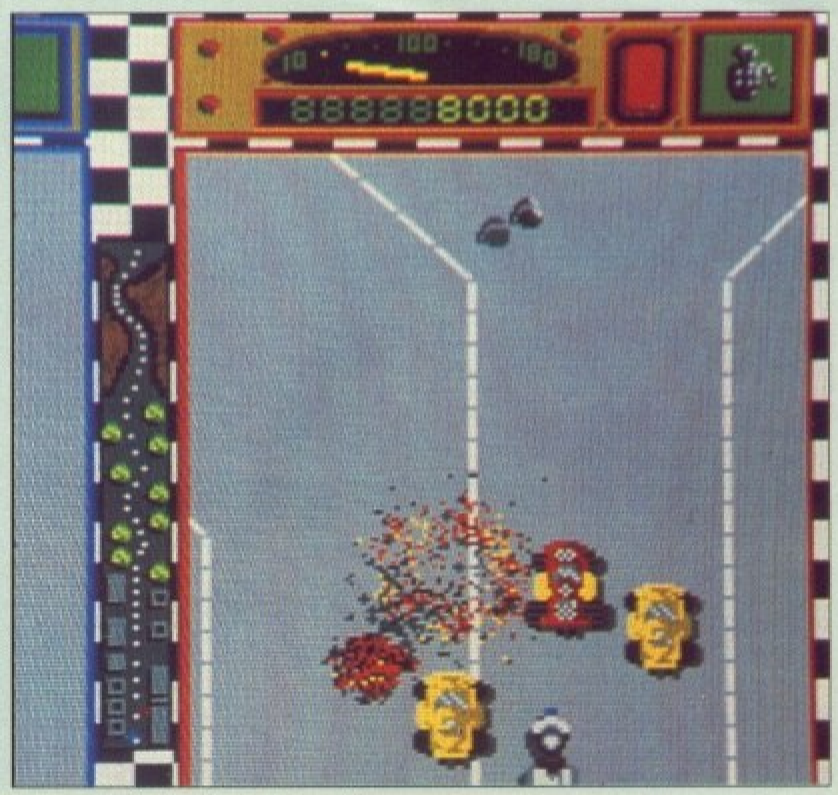
Turbo is a traditional top-view scroller, much in the spirit of Spy Hunter. It can be played against the clock, which is enormous but short-duration fun, against another player, which is enormously enormous fun, or over a comms link, which is critically unreliable according to the publishers.

The graphics work, the sound is suitably grotesque and the whole thing is presented with the panache of a dead stoat. But it's such manic fun to play that that all goes out the window.

If I had to describe Turbo as glibly as possible, I'd go about it thus: Audio- Visual Jadedness is the disease, Turbo's the cure.

Stewart C. Russell





Pigs might fly, but this one's on a bike

THE GAMES –

Wow, is

US Gold's timing is immaculate – not merely is the summer well and truly over, but these Games are set at the 1988 Seoul Olympics. So we are doubly out of date.

The delay can be almost wholly attributed to US Gold not being over keen the original Epyx PC version, and commissioning The Code Monkeys to do the Amiga and ST versions. It was the right decision.

After a rather neat opening sequence it's time to choose the players and their countries. Each country is denoted by its flag and a short burst of national anthem, which is, again, rather nicely done.

There are eight events in total – two more than the usual six – and in competition any number of them can be played in any order. There's a good practice mode where any of the sports can be played singly, useful for learning up an event to thrash the competition next time around.

First on the list is target archery, and jolly playable it is too. Separate scenes allow you to choose the draw length and the aim, which leads up to the release of the arrow.

Six arrows have to be shot in 90 seconds, which is a bit of a rush. Hit the target and you are rewarded with a white rabbit running across the screen – miss high or low and... No, I won't spoil the surprise for you.

Anyway, the whole thing is completely unauthentic because they've got the draw length all wrong. I know this because I'm a target archer, albeit a mediocre one.

Next off is velodrome cycling. This is done in a very swish filled-polygon track. The event is the exciting 1000m Sprint. Only the last 200 metres are timed, the rest being an exercise in tactics.

The idea is to let your opponent act as a windbreak until the last moment, when you scoot out for your final sprint.

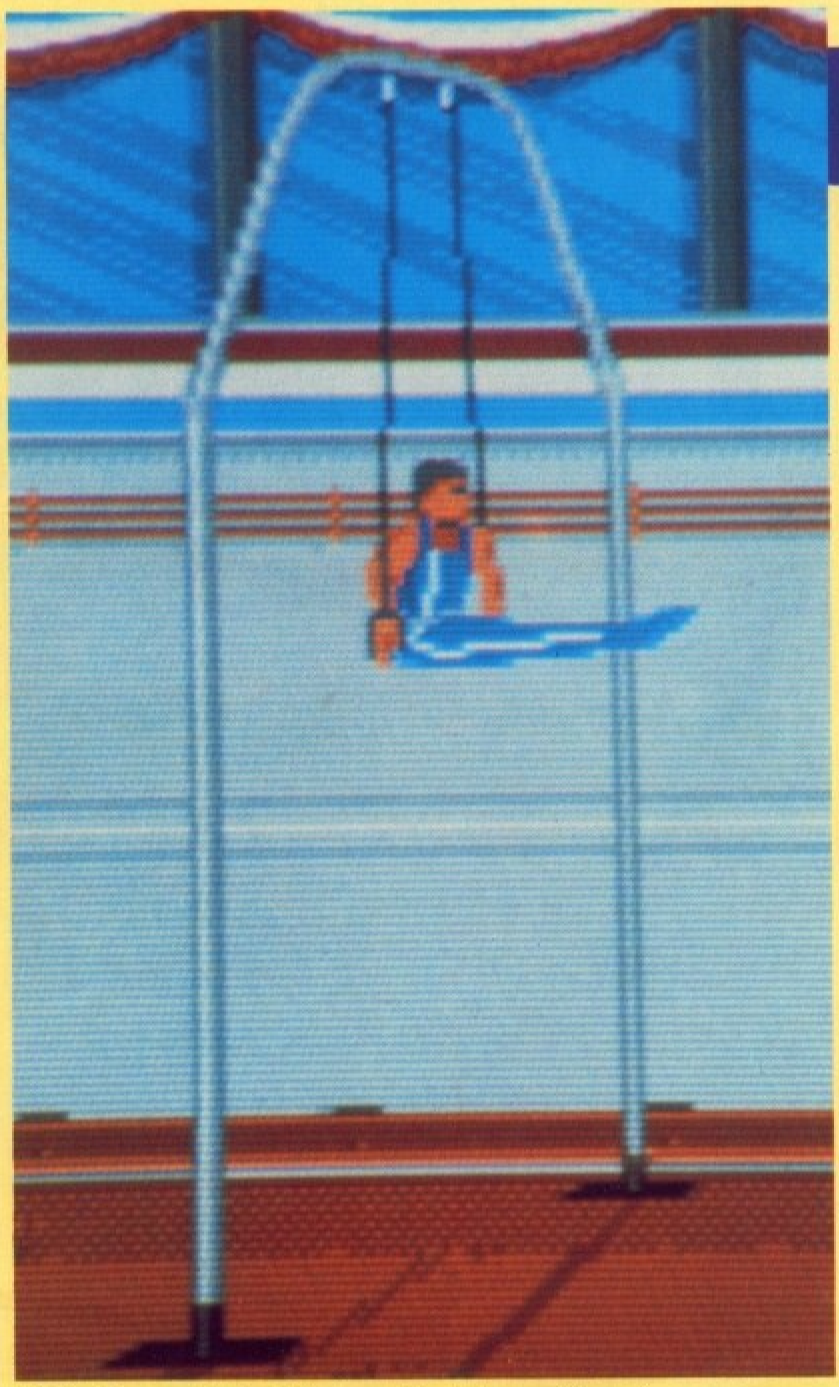
The tactics are captured well, but the actual riders are too small to give any impression of the type of real-life acceleration that is needed – so explosive that bicycles have snapped under the strain. It's still my favourite event, though.

Springboard diving is good family entertainment, but perhaps a little too confusing to be anything else. Even with the initial run-up and jump timed correctly, a similar sequence of joystick moves produced either 1 per cent or 90 per cent of the top score. Your guess is as good as mine as to how this works out. But it's good for a laugh, with animated crowd and judges, plus something nasty that appears if you take too long.

Hammer throwing is straightforward. All this little beauty requires is the correct swing and the correct release timing, both of which are easier said than done.

There are a few ways of getting it wrong – release on the backswing for example, which makes a hole in the fence, and release at the side, which makes a hole in the monitor. There are more. Actually scoring points is far less interesting.

The 400m hurdles is run over



Finding the correct rhythm to hold a position is the secret to the rings



Row Z, seat 15 here I come...

SUMMER EDITION

that the time already?

another filled polygon track, solid vector being officially old hat. The actual race is another "Daley Thomson's got shares in the joystick company so he doesn't mind if you break it" type game.

What is really nice is the tune, with a groovy James Taylor style organ break – James Taylor as in the eponymous Quartet, not as in BOF. Although running is easiest using the keys, a new keyboard for the A500 is a tad more expensive than a new Konix, so I'm sticking with the latter.

Most athletics games make the Pole Vault the difficult bit. The Games is an exception – it is very difficult, maybe even extraordinarily so. There are many variables to get exactly right, but I guess that's the way it has to go until someone thinks of a better way of presenting it. The vault can be made, but it takes a long time trying. Again, as in almost all the events, there are some laughs to be had along the way when things go wrong.

Making up the eight are the two gymnasium events – the rings and the asymmetric parallel bars.

The rings need fast and accurate movement between set positions, and then a hold in each position for two seconds. Like the diving, until you've become very experienced at the controls a random set of joystick moves can give as good results as following the script.

If you fail in any way, the little man – whose animation, like most of the competitors in most of the events, amounts to hundreds of frames – dismounts, and starts crying. Aww!

You then have the honour, or the ignominy, of being photographed for the back page of a digitally plagiarised tabloid.

The asymmetric parallel bars – Epyx calls them Uneven, which is shorter and easier to spell – has your female competitor doing a set series of moves, egged on by her companion on the sidelines.

Again, random moves can prove fruitful, but then again they can result in the Back Splat Fall, which earns no points and is somewhat painful looking. Again, the tabloids are there to record your success or failure.

After all is finished there is a neat medal ceremony followed by a small closing ceremony, complete with flypast. And that's about it. Polished, very well presented, some good events, some bearable ones, and plenty of scope for competition.

Niggle the first: Although the graphics are good, only the top 200 lines are used – three marks deducted for that, I'm afraid.

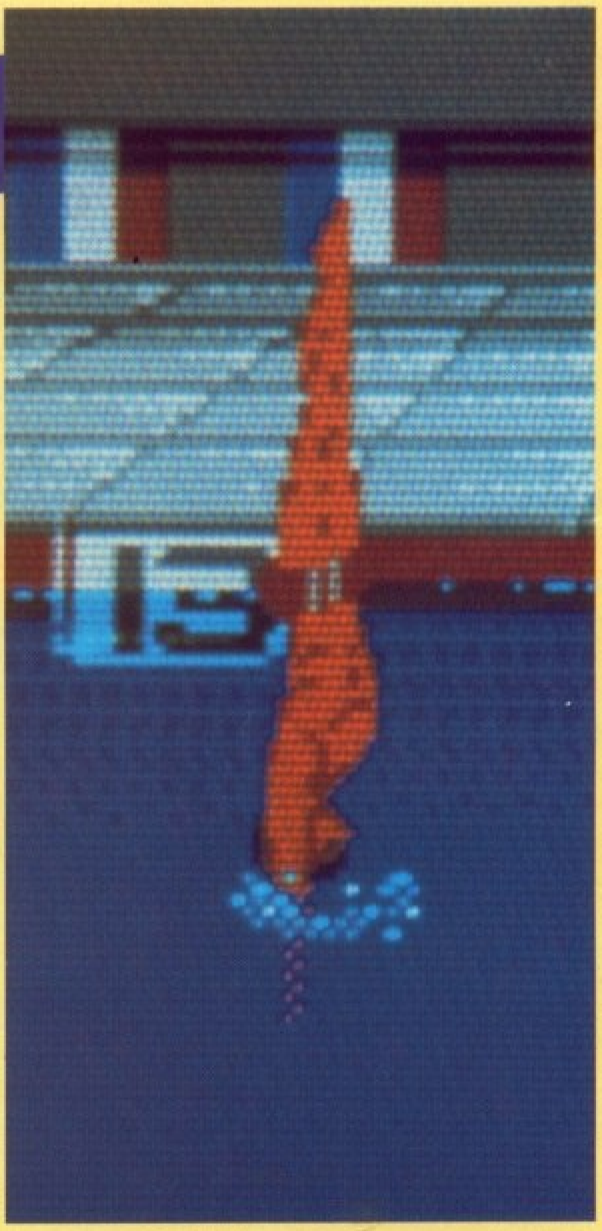
Niggle the second: The game loader spends at least half of its time seemingly not doing anything, with the drive motor off. It's almost certainly de-compressing data, but it does make you yawn now and then.

Niggle the third: Even though The Games comes on two discs, it won't use the second drive. OK, so the code fills a 512k machine completely meaning that a second drive – which needs about 20k – can't be used, but why can't it auto-detect a disc change? We're talking "Insert disk into A: and press button" here. What a pain!

Niggle the last: The usual caveat about additional hardware should be heeded – The Games caused my elderly modem to get confused and hang the telephones for several hours. Not funny.

Niggles notwithstanding, The Code Monkeys have done a very creditable job – you'd be very hard pressed not to find something you'd enjoy here. But what a shame we didn't have boxing. Remember the Korean team? Missed out on a serious piss-taking opportunity there.

Stewart C. Russell



Plop – the perfect entry

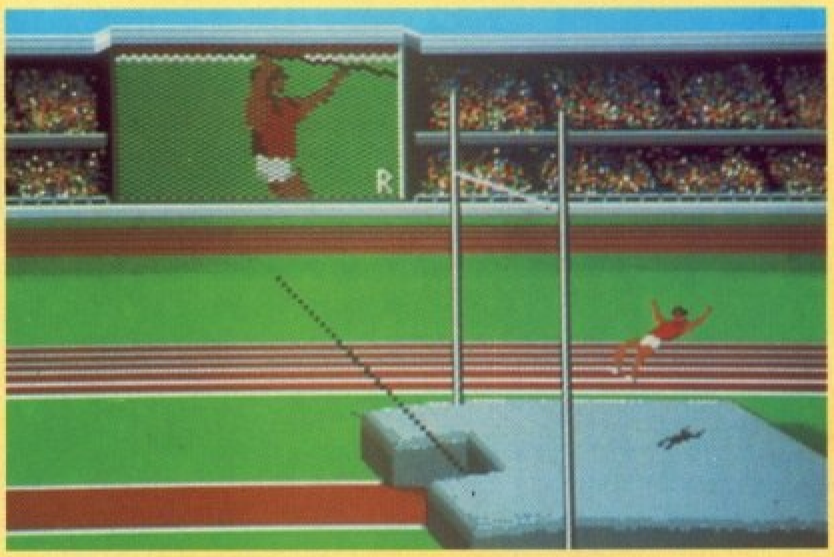
The Games – Summer Edition
£19.99
Epyx

Sound
Graphics
Gameplay
Value

Overall – 92%



Flash, or what?



It's easy when you know how

ALTERED BEAST

Bates? Steba? Beats? Tebas? Baste?



Eye-eye-eye-eye-eye-eye like you verrry much

WHEN you are dead you might think that at long last you'll get some time to yourself. Take in a few movies, hang about with your dead buddies, do a spot of haunting perhaps, and get a chance to find out what really swell guys worms are after all. But no. For these are the pinky blue skies of ancient Greece and, here old heroes never die, they just hang around and wait to get resurrected.

Sure enough, some old geezer pops up eventually and asks you to rescue his daughter. So it's time to shuffle back on this mortal coil, but probably not for too long.

Here ranged against you are wolves, skeletons, large blue monsters and some more skeletons which are even more upset than the first bunch.

Oh, and I forgot the funny flying gargoyle things that try to whip your wig off. Why the wolves don't run off with all those bones beats the hell out of me.

If you cripple enough white wolves and collect the glowing globey things, nothing much changes – a bit like getting the ECS I suppose. However, if you collect three of them, then for some jolly good reason you will transform into a werewolf yourself.

This new hirsute physique comes with the ability to hurl fireballs, whizz about at the speed of the blitter and beat everybody up fairly easily without even trying.

Everybody, that is, except for one. Some baldy old bloke with a face only the front of a very large truck could love will intervene, trying to do his dirtiest to stop you.

He seems to have some sort of static electricity problem 'cos large sparks fly from his fingertips whenever you get close. Eventually he will turn into a large monster which keeps throwing his head at you. It's all right, he has a few to spare. And that's only the first level. I want danger money.

Progress further into the passageways of the earth and meet even more terrible monsters who defy gradation on any meaningful scale of horribleness. If I ever see those eyes again...

Fear not, though, for later you have the power to turn into a fearsome dragon and some sort of blue teddy bear with terribly bad breath – well the beasties don't like it anyway, and I can't blame them.

If there's anything worse than a ball of blue fluff in your belly button it's a giant ball of blue fluff breathing all over you.

Ancient Greece is looking pretty good. Live at Pompeii, the only thing missing is the constant swarm of insects. The animation at the beginning and of the end-of-level beasties is quite impressive, but the transformation sequences, which were by far the best parts of the original arcade version, are sadly missing from this otherwise fairly faithful conversion.

Also your bloke and his fellow



Rock on Tommy



The wolfman nears the end of level one

GARY Gygax adds a few more gold pieces to his secret hoard by allowing the D&D name to be used on Hillsfar, a new role-playing game from SSI. To what extent this partnership goes is uncertain, but seemingly only to the level of having Advanced Dungeons & Dragons scrawled all over the place – on the box, on the loading screen, on the hint booklet... er, not that I needed to read it of course.

Before you go anywhere in Hillsfar you must select a character. This may be of the roll-your-own variety or from the obligatory selection of ones-made-earlier.

If you bought Pool of Radiance or Curse of the Azure Bonds, then you can import your character from there, tax free.

Loading in characters – hah! – that's a different experience. If there is one thing more annoying then 17 levels of requesters asking you if you are really absolutely sure, certain and positive that you want to overwrite the character in memory, then it is the total lack of

combatants sometimes look a bit murky – perhaps because of the choice of colours. Their animation isn't up to quite the same standard, either.

It's a good job Activision has included those nice graphics for the intermission because it seems about a day's wait. What can it be doing all that time? Playing a sneaky game on its own? I thought part of the idea of re-writing the disc format was to make it a bit faster.



To say the gameplay is agressive would be to commit criminal understatement. At later levels you will know what a small white plastic sphere feels like at the Olympics. If you don't get your enhancer potion quick, it's party time for all the worms again. It is easy to speculate that with such a long period between the release of the arcade machine and this Amiga conversion that someone could have done a better job of the graphics. Nevertheless, it is sufficiently playable and challenging to warrant investigation.

Green

Altered Beast
£24.99
Activision

Sound	
Graphics	
Gameplay	
Value	

Overall – 82%



Oh no! Looks like KYAG time again

HILLSFAR

The bitterest hill is hard to take

any sort of warning whatsoever. Anyway, then you ride into the much fabled metropolis of Hillsfar. Well, maybe they didn't have much to fable about in those days.

Travelling the highway is itself an adventure. Watch out for all the obstructions in the road – trees, puddles, bales of hay... Added to that, the occasional crazed lunatic takes a pot shot at you from the trees. Who said raving paranoia was a disadvantage? If you don't believe in predestiny then you are going to be very upset by this game.

There are four character classes – fighter, thief, cleric and magic user. Each has three quests available to him, always the same and always in the same order. Of course, what you do in your time off is up to you.

You can become horrendously wealthy by offering to clean out various persons' chests while they are not about. You can also become horrendously dead 'cos if they catch you in the backstreets trying to pick door locks they're going to send you home to mother in a cardboard box.

The city includes a cemetery, an arena, a shooting range, various pubs – you can't get a decent pint of Guinness in any of them – and a fair sized sewer system. What you do is totally up to you.

There are other locations outside the city if you want to brave the equestrian challenge again, but they are only really worth visiting if you have to go there as part of a quest.

Otherwise you may as well have robbed somewhere closer to home, since once you break in, most places are the same – a maze with chests of booty lying about.

Sounds are generally OK but can be a bit strained at times, so they fit in excellently with the gameplay. To be truthful, it is probably a very accurate simulation of life in a primitive environment, it certainly captures the timeless tedium and pointlessness of it all.

The *modus operandi* of thievery has just reverted from touch screens and modems in high rise city offices to the more noble lockpicks and large swords in dank dungeons, but the quality of life is just the same.

Some of the little sequences you stumble upon, like the arena for example, are quite entertaining and graphically effective, but there is not too much to keep the interest above critical boredom level.

Lucinda Orr

Hillsfar
£24.99
SSI

Atmosphere	
Graphics	
Gameplay	
Value	

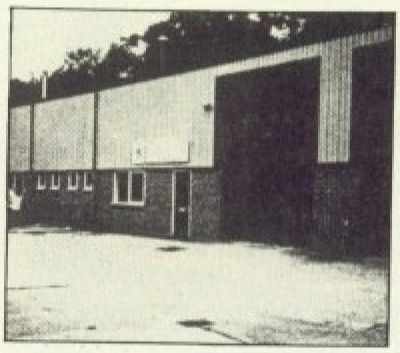
Overall – 72%



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Please note some Leisure titles are awaiting release

VISA

Jeff Walker presents...

THE DISC



Chess 2.0



Sigh. If only it was PAL...

I KNOW what you're thinking – you hate Andrew Lloyd Webber. That's why this is a proper chess game. You know, horsey to king prawn... in fact, this is the best PD chess program to date.

Those that know their Karpovs from their carpets may also know that the Prussians once used a variant of the game of chess to train their commanders. They called it Blitzspiel and played it on two boards. The opponents were in different rooms, each of them able to see only his own pieces. A spotty oik would run between them taking pieces off when necessary.

The idea behind Blitzspiel was to teach military strategy. At this point in the story I think it's only fair to point out that throughout history the Prussian army got whacked by almost everyone.

This game isn't quite so tough, but it still whipped me pretty good with only a five second response time. There are no skill levels but play can be made harder by giving the computer longer to think.

Everything about Chess 2.0 says "Amiga" and "friendly". Nice requesters, the ability to change things, load and save positions, ask for a hint... Lovely stuff. Even the doc is a riveting read. And it's true PD. Freeware, as they say.

Mr Kaufman, we salute you. It's decent blokes like you that make the Amiga world a nicer place to muck about in.

CHESS 2.0 is freeware. It may be distributed free of charge provided that no extra restrictions are placed on it. No payment is required for using this program, but you should feel yourself obligated to send in bug reports.

If you enjoy the program drop the author a line because he'd be glad to hear your comments and suggestions for future enhancements: Alfred H.W. Kaufmann, 124 Silversprings Rise N.W., Calgary, Alberta, Canada T3B 3Z6.

QView



Attaching QView to a text file's icon

SOME letters have come in asking about the file viewer I've been using on the cover disc. A few of you noticed the change from View to QView and wondered why I don't use More from the Workbench disc.

The reason is simple. I wanted something smaller. For what it does, More is extraordinarily large, almost 11k in fact. View is smaller and it does the job, but it has a worrying "feature" whereby the scroll arrows at top and bottom right come out as random blobs when a hard drive is plugged in.

Then I happened across release v1.1 of QView. It was no contest. In 3372 unpacked bytes, author Lyman Epp has managed to shoehorn 18 keyboard control options for moving around a document, a hex display mode and an Ascii search routine.

Check out QView.Doc for all the details.

Support you shareware

IF you find QView useful, the author will be your friend for life if you send him $10. Responding in this positive fashion will ensure the release of more quality programs for your Amiga. Post your dollars to: Lyman R. Epp, 10072 Wirt Plaza 15; Omaha, Nebraska 68134, USA.

Workbench 1.3.2

YOUR Christmas present from us and Commodore is something that money can't buy – the official Workbench 1.3.2 upgrade. Lots of those annoying little "features" in 1.3 have been fixed, and lots of those begged-for enhancements have been made, resulting in 20 replacement files.

This is going to be your last upgrade before 1.4 next century. Did I say century? Sorry, I meant year. It just seems like century. Anyway, make the most of it, is the point I'm trying to make.

Don't forget to have a gander at the ReadBeforeUsing file. It's a very serious licence agreement and you should compose yourself before reading it.

Banging your head against the wall will probably put you in the correct frame of mind.

I wouldn't for a moment dream of taking the mickey out of such legalese statements as "you may not decompile, reverse engineer, disassemble or otherwise reduce the software to a human perceivable form." No siree. You won't catch me pointing out that it would be impossible to reduce it to a human *imperceivable* form because if you did it wouldn't be any use because wouldn't be able to perceive it.

Nor would I suggest that "The licence is effective until terminated" is just another way of saying "Till death us do part", so don't read the thing aloud with a priest in the room or you may end up married to your monitor. (Go away, Green. No I won't be your Best Man.)

There's also a list of countries that you are not allowed to send the upgrade to. Poor old Hungary and Poland – make themselves democracies and they still can't own Amigas.

If anyone ever translates that document into English, be sure to send me a copy. In the meantime, eat, drink, be merry and don't worry about it.

Utilities

CMD: *Works with device names that have odd number of characters. Query function added so works with printer drivers that query the printer.*

ClockPtr: *Switched over to the European version with the 24 hour option.*

Libs

version.library: *Version number changed.*

info.library: *No longer improperly combines tool types.*

Devs

serial.device: *No longer crashes on mismatched baud rate. Refuses to open unavailable units. Lower overhead.*

printer.device: *Support for multi-pass printers fixed*

L

Pipe-Handler: *Names are now case indifferent.*

Speak-Handler: *No longer loses 10k when unknown packet received. OPTs are now case indifferent.*

FastFileSystem: *No longer fails if the boot block of a disc contains a zero in the first long word. Whenever a file not in the root was altered, the date stamp of the root block would be altered. This has been fixed; the last modified date is now altered instead. Due to a calculation error when writing out the bitmap the disc would always validate on restart if it was greater than 308 meg. This has been fixed. New limit is 2.5 gigabytes. Tested to 600 megabytes.*

Aux-Handler: *Sets the flags to 0 on open of the serial.device.*

System

Format: *Works with large hard drives (uses BufMemType). Inhibit logic fixed. Secondary results are properly set. Better error messages. Only opens icon.library if it needs icon.library. NoFFS keyword removed (was not useful).*

Diskcopy: *Uses fast memory in a single drive copy if chip ram is unavailable. Single disk copy on a 1 meg chip ram machine works. Verify by default; noverify option added. Only opens icon library if it needs icon library. If Diskcopy fails the failure cylinder is left showing on the screen. Secondary results are properly set. Better error messages. Multi keyword allows multiple copies of single disk.*

FastMemFirst: *Tests for chip mem-*

NewLook

IF you're staring at the CD005 window knowing that something looks different but can't quite decide what, then take a look at the gadgets.

The Close gadget has become a circle, the front and back gadgets have become arrows, the two bold horizontal lines along the drag bar have turned into a stipple pattern, and the Size gadget has changed into a diagonal double-arrow.

This is the result of running NewLook, a Workbench hack by David Junod.

Things are going to look different again when Workbench 1.4 arrives, but until then you can use NewLook and its sister, NewArrows, to prepare you for the shock.

Best thing to do with NewLook is copy it into your C: directory and run it from your Startup-Sequence. NewArrows you'll have to double click on.

A change is as good as a rest, they say. So why am I falling asleep on the drive home?

Game

PSYGNOSIS' slogan is "Games People Play". But you can't play Shadow of the Beast because it's too flippin' difficult. Which is why I threw the thing at Max the Hacks and demanded invulnerability. Max passed it on to Justin, who took it to pieces, put it back together again and came up with the Beast Infinite Energy Hack.

It's almost perfect. Big JG was hacking to a deadline and there was one beastie he couldn't neutralise in time – the big grey one at the end of the first stage. To get past him you'll have to pick up a weapon by punching the blue dragon's ball. You'll find him way to the left of the teleport. Don't be scared of him, the hack will protect you from his bad breath.

To use the hack, follow the on screen instructions that appear when you double click on the Beast icon. After you insert the Shadow of the Beast game disc, four error requesters will appear in this order: Disc is unreadable, Disc structure corrupt, Not a DOS disc, Not a DOS disc. Click Cancel each time and then Fire your joystick.

That's it. Go explore Necrophilia. Or was it Necropolis? Something like that.





C

SetPatch: *Alert code fixed to work with 1 meg chip ram machines. TrackDisk GetUnit patch added. DOS Execute() patched that uses Run from the resident list. UserState patch for 68010.*

LoadWB: *Now closes icon.library.*

Eval: *() added; also parses strings in a more relaxed manner.*

DiskDoctor: *Incorrect error message (out of memory) changed. Uses BufMemType so works with large hard drives.*

SetClock: *Reset option now skips clock validity check.*

Mount: *Baud and Control mountlist keywords added for multi- serial use. Full option added to startup to create handler entries with full environment support.*

ory properly. It worked fine before; however, it was incorrect.

NoFastMem: *Changed to also specific divert calls on fast memory to public memory.*

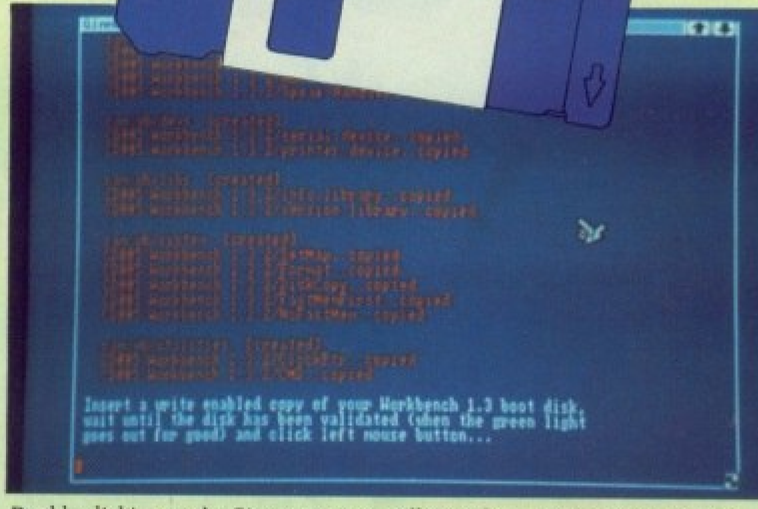
SetMap: *Kludge added to make sure that, under Kickstart v34 and below, a keymap never spans a 64k boundary.*

Nervous Normans Start Here

COPYING files from one disc to another can be a real pain if you're new to the Amiga. It can be especially difficult if you're new and you've only got the one disc drive. Like my next door neighbour, Norman.

I promised Norman I'd write a script file which would automate the process. And I did. And I called it Gimme132. (Well we all have to be called something.) Double click on its icon to start the upgrade. Subtitles for the hard of thinking follow:

1. *Make a backup copy of your Workbench 1.3 boot disc – the one you normally use to start your Amiga up.*
2. *Make a backup of this month's cover disc, referred to from now on as CD005.*
3. *Put your original CD005 and Workbench 1.3 boot disc well out of harm's way so there is no chance of you picking them up by mistake. Another universe is a good example of well out of harm's way.*
4. *Remove all discs from all drives, and switch your Amiga off.*
5. *Wait 30 seconds and switch your Amiga on.*
6. *Write protect the backup copy of CD005 and insert it into DF0:.*
7. *Click the left mouse button when the Mini-Intro appears.*
8. *When the disc icon grinds on to the Workbench type EndCLI into the AmigaDOS window (important for 512k machines!) and double click on CD005.*
9. *Double click on the Workbench 1.3.2 icon.*
10. *Laugh at the bug cartoon. (Go on, it took me more than four hours to do.)*
11. *Take a deep breath and double click on the Gimme132 icon.*
12. *The script file will open a big window and say hello. Click the left mouse button after you have said hello back.*
14. *(Because I'm superstitious.) The drive will whirr a lot. The script file is now copying all the relevant files into RAM: and reporting its progress in orange letters. This process will take a little while.*
15. *The letters will turn white and you will be invited to swap discs. Make sure you wait until the disc access light is out before removing CD005, and make sure you wait until the disc access light is out before clicking to continue after inserting the backup of your Workbench 1.3 boot disc.*
16. *The drive will whirr a lot again. Everything is being copied from RAM: into the correct directories on the 1.3 boot disc. This process will take a little while.*
17. *A requester will appear inviting you to replace CD005 in DF0:. Do so. (Erm, remove the 1.3 boot disc first.)*
18. *All the files in RAM: will be deleted, the big window will disappear, and you'll be back where you started.*
19. *Get a disc label, write Workbench 1.3.2 on it and stick it on the boot disc.*
20. *Double click on the ReadMe icon.*
21. *Read.*



Double clicking on the Gimme132 icon will start the upgrade process rolling

Cheats



This guy can't hurt you now, but you'll still need a weapon to get past him

The Right Button Demo

WIMBLEDON is best known for its tennis. But for how much longer? For if you wander into the local Comet warehouse in that part of South West London and look at the Amiga display, you'll see the Amiga Computing Zowee! Demo from the September cover disc up and running.

"It's so impressive", said the guy who phoned from Comet, "we think it's just perfect for showing our customers what this machine is capable of".

There's praise for you. Jolyon's gone up a hat size.

This month's demo isn't the normal sort but an example Jolyon put together of how to implement collision detection, the subject of his latest machine code article. The music is once again by Kevin "Savage" Collier. It started out life as the music for Australian Games, but was turned down because "it wasn't Australian enough". I guess what it needed was a dijeridu.

Hook up the hifi and enjoy. I'll leave you to find out why it's called The Right-Button Demo for yourselves.



FixDisk

DISKDOCTOR doesn't work miracles, even though it claims to. It is such a cack-handed program to use that I was determined to put Dave Haynie's vastly superior DiskSalv on to the first cover disc.

From the letters and phone calls I've had, it seems DiskSalv's only slightly less confusing than DiskDoctor to those of you who are new to the CLI.

So here's a Workbench alternative, FixDisk by Werner Gunther. Jeff's three golden rules apply here:

1) Read the documentation thoroughly
2) Only work on a back-up of your corrupted disc, and
3) Don't rush, take it one step at a time.

Don't come crying to me if FixDisk makes an even worse mess of your only – albeit corrupted – copy of whatever. You should follow rule number two even if you ignore the others.

Hard drive owners will be disappointed to learn that FixDisk won't work with the FastFileSystem (FFS). It will, however, work on SFS partitions up to 4063 blocks – that's just under 2 meg. But, let's face it, using disc repair programs on hard drives is a desperate measure, I strongly advise caution. As the docfile says right at the top: Use this program at your own risk.



This of one hell of a powerful program. Read the docfile thoroughly before you start playing with it

VD0:

I RECKON I'm asking for trouble putting this on the cover disc. The author, Perry Kivolowitz of ASDG Incorporated, isn't over the moon about the idea either. We share the same concern. Phone calls. And letters.

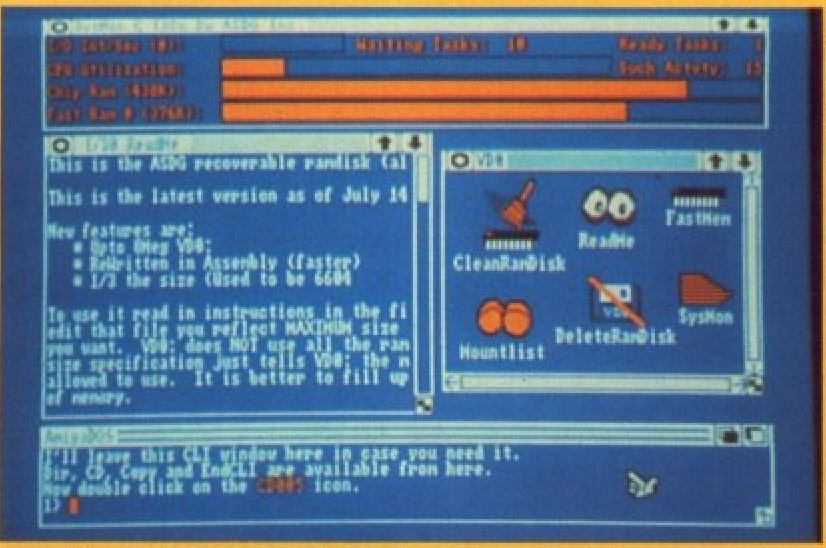
You see, VD0: does something very clever. It gives you a recoverable ram disc, like RAD:, only this baby is dynamic like RAM:, which means it only takes up as much memory as it needs.

If you copy lots of files to VD0: it'll reserve however much memory it needs to store that total amount of data. If you then delete some files, VD0: will free the memory those files was stored in.

Wonderful stuff. Totally transparent to the user. But there's a snag. And it's a biggie.

Perry doesn't guarantee that VD0: will work in memory mapped in at $c1000. All 512k ram expansions map themselves in at that address. What this means in end-user terms is that VD0: won't work with a 1 meg Amiga – that is, one with only a 512k ram pack installed. It'll work on a vanilla 512k machine, and it'll work if you've expanded to 1.5 meg or more.

So now you know. But the bloke you gave a copy of the cover disc to doesn't. So phone him up and tell him before he reaches for his



In the VD0: drawer are four associated tools

YOU KNOW IT MAKES CENTS

IF you use this Shareware product and want to become a registered VD0: owner, send $10 to: ASDG Incorporated, 925 Stewart Street, Madison, WI 53713, USA.

Being a registered owner means you will feel better knowing that you helped defray the recoverable ram disc's development costs. ASDG will answer technical questions from registered users only, and will distribute new product news to same.

WinSize

POSITIVE feedback has led me to think harder about the presentation of the cover disc. Many readers have written to say what a good idea it is to leave the CLI window open and include a few useful commands in the C directory.

With this in mind I dug out a program I picked up years ago which lets me re-size and re-position the AmigaDos window from the Startup- Sequence.

When you boot the cover disc, it's WinSize that picks up the window, makes it smaller and moves it down to the bottom of the screen. The line in the Startup-Sequence which does this is:

```
winsize/winsize 0 210 640 46
```

When you double click on CD005 yuo'll see the method behind my madness. Like it? Let me know.

Dneishe Start

KENNETH THORNTON wrote me a begging letter. Is it possible to offer your cover disc menu display to your readership on a future disc, he asked. No sooner asked for than got, Ken.

Select (aka Dneishe Start) is that program. And it isn't ours, it's – you guessed it – shareware.

The program has a couple of idiosyncracies *(Otherwise known as bugs – Ed)* which I'd better tell you about.

Firstly, it won't work with the 1.3 release of Execute, which is worrying. But it seems to run perfectly well with the Workbench 1.2 Execute command. You'll find that on the cover disc in the C directory.

The second problem is that you can't use boot sequences with spaces in their filenames. No, not even with quotes around them. So:

```
select "This Boot" "That Boot"
```

will not give the desired result. What you'll end up with is four menu selections to choose from: This and Boot and That and Boot. You have to use hyphens or underscores if you want to separate words. Like so:

```
select "This-Boot" "That_Boot"
```

It also refuses to load and run some commands correctly. It's trial and error time, I'm afraid. The only one I've found is EndCLI. I don't use that in my cover disc boot sequences any more, so I don't care. You may have to find a work-around.

Reader contributions

FIREWORKS

by Fuzzz & Euphoria

WHEN the programmers at Argonaut Software were developing their new assembler, ArgAsm, they needed a program to test it on. Fireworks was that program. It's a bit late for November the fifth, but it's small and it's cute and the commented, totally OS-legal source code is there for you to see how the professionals do it.

See if you can spot the three kinds of fireworks – rockets, roman candles and red-green-blue traffic lights (which doesn't make sense when you first read it, but will if you think about it).



Fuzzz of Argonaut: "Me crawl to the boss? Never!"

Not a lot more to be said. Double click on its icon to start, click the left mouse button to finish.

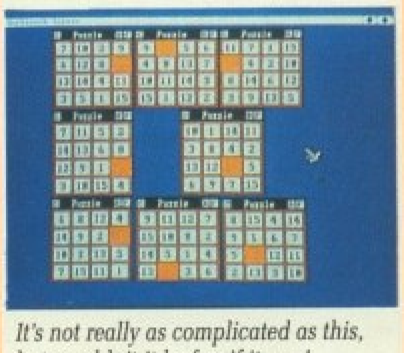
PUZZLE

by Mark Everingham

SLIDING puzzles have been a favourite of mine ever since I got my first one out of a Jamboree Bag. Remember them? Neither do I – I (ahem) pinched it off my big brother who said he was "keeping it for posterity". Well, the Flying Saucer was soft, but the Love Heart (Touch Me) went down a treat.

Anyway, back to the little plastic sliding puzzle, which was, according to bruv, the next best thing to a green dinosaur. And it was a real devil to play because the first puzzle you had to work out was how to make the tiles slide. Stiff, or what!

So you can imagine my pleasure when 16-year-old Mark Everingham from Bristol sent in his Amiga Workbench version. Compiled with Aztec C (v3.6a) – and the source code is there for you to study – Puzzle is Mark's interpretation of the classic Macintosh desktop toy. It's only the third program he has ever written on the Amiga. Cheques in the post.



It's not really as complicated as this, but wouldn't it be fun if it was!

MINI-INTRO I

by Marcus Lynn

WHEN Marcus Lynn first came to the Amiga from the ST he spent a lot of money on books so he could learn how to write good demos and all sorts of mega things. But now he finds that half the books he bought have never been used.

"I could have saved a lot of time, money and sheer hell", he says, "if I could have had access to some source to see how more experienced programmers programmed".

Now that 19-year-old Marcus has become more experienced he wants to share his knowledge with beginners and try to help them break through some of the early barriers. And who am I to stop him?

Mini-Intro is the program that auto-runs when you boot this month's cover disc. If you want to see it again later, you can double click on its icon.

The source code is well commented and simple to follow as long as you know the basics of 68000 machine code. One of the easiest things to do is change the scrolling message, which begins on line 351 and starts with the word Welcome.

Insert as many more DC.B statements between TXT: and CCHAR: as you like, making sure your text is enclosed by single quotes. Marcus uses Devpac 2 to assemble his code, but it should be fairly compatible with most Amiga assemblers.

And before I get a letter from the Format reader asking if it will assemble with the limited version of Devpac he got free, I don't know. Suck it and see.

OXO

by Richard Wildman

HANDS up everyone who can't resist Workbench toys. You know those small programs you play with while you're waiting for AmigaDos to format a disc. Come on, own up... One, two, three, four, five, six ... thirty-seven thousand, six-hundred and fifty-eight, thirty-seven thousand, six-hundred and... Phew that's enough of that.

Well, this program will give you a quick game of Noughts and Crosses. It doesn't know any strategies, it doesn't learn from its mistakes, but it's got cute X and O graphics and it knows the rules of the game – it's amazing how many times it can catch you out. Doesn't catch me out, of course.

Programmer Richard Wildman who is 17, is at college in Nottingham studying a two yea

THE GAME OF LIFE

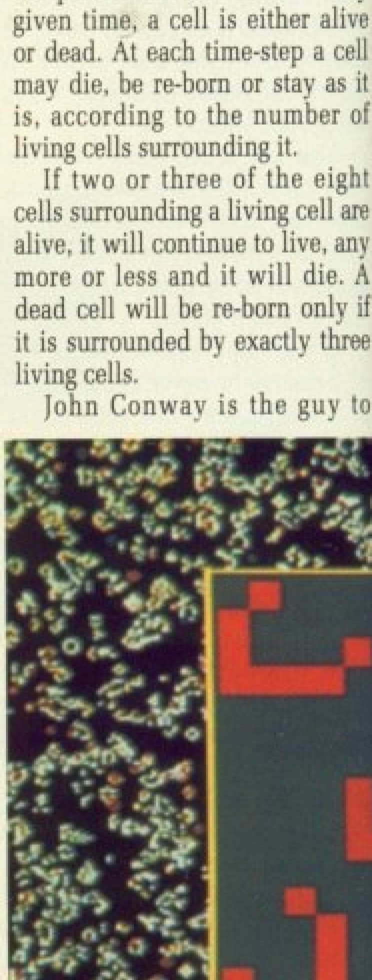
by Philip Gibbs

WHAT is Life? Who am I? Who are you? *Where* are you? Where am I? What does the J stand for in the Perrier advert? Who writes this rubbish?

A cellular automata is what Life is, a model which imitates the performance of cells. At any given time, a cell is either alive or dead. At each time-step a cell may die, be re-born or stay as it is, according to the number of living cells surrounding it.

If two or three of the eight cells surrounding a living cell are alive, it will continue to live, any more or less and it will die. A dead cell will be re-born only if it is surrounded by exactly three living cells.

John Conway is the guy to



Life, don't talk to me about life...

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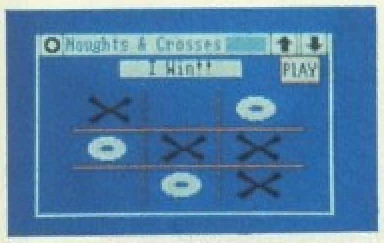
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d Wildman,
college in
a two year

computer course. "This was my first attempt to use the Amiga's graphics library functions", he bravely admits, adding, "Those reference manuals are not too easy to get through!"

When Richard isn't using the college's computers he is at home on his expanded, double-drive A500. "I've been interested in computers", he says, "since a teacher at my junior school brought a ZX81 into class to show us. Wow! I was hooked."

You may not get hooked on OXO, but it beats counting the grease stains on the wallpaper. Nice one, Rich – keep 'em coming.



I let it win, honest I did

LIFE

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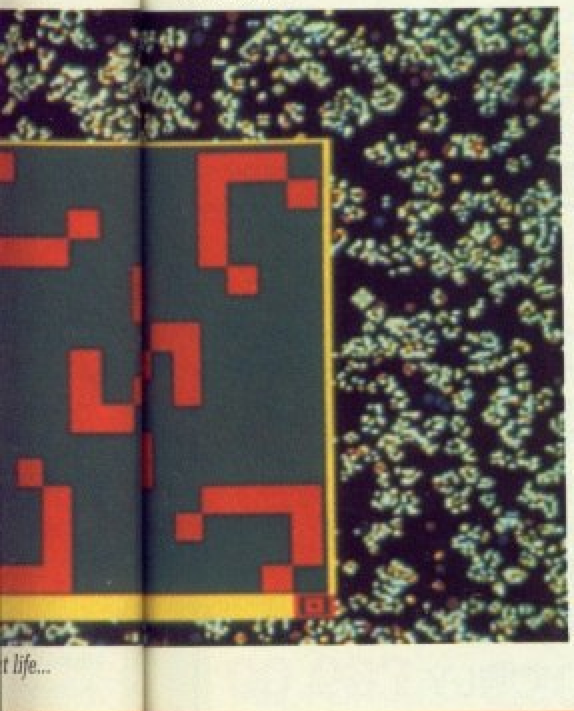
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he guy to

blame for all this. It was his invention. Long time ago now. He's a mathematician. At least he was. Probably still is. Philip Gibbs is a software engineer. He wrote this Amiga version of Life. You may remember him as the author of the Workbench Mandelbrot program on the October cover disc.

A discussion of the ins and outs of The Game of Life is way beyond this piece. People write whole books on the subject. My advice is to trot down your local library and look up *Conway, John* and

Not knowing what the hell is going on doesn't stop you playing with it though. My favourite game is to choose Clear and Fast from the Screen menu followed by Soup from the Border menu. Then I sit back and watch what develops. Fascinating stuff. If it all gets a bit stagnant, I press the left mouse button and plant a random colony. Great stuff!



t life...

AMIGA COVER DISC

Win up to £1,000!

WE are always looking for original contributions for the *Amiga Computing* cover disc. If you think something you have written or drawn is good enough to share with everybody else who reads the magazine, send it along and we will have a look.

If we like what we see, it could earn you up to £1,000.

Please let us know which files, if any, your submission needs from the Workbench disc. If it is clickable, feel free to design an original icon. But don't make it too big. And please use the standard Workbench colours.

Bear in mind that a program which does not run on a 512k machine would have to be exceptionally good to make it on to the disc.

Remember that *Amiga Computing* will only buy your work on an all rights basis. We are not prepared to buy the rights to programs which are already in the public domain or have been spread by any other means.

Please enclose this coupon, or a photocopy of it, with your submission. Include a file on the disc with full documentation, your name, address, phone number and a few details about you and your kit. A mugshot would be nice, but isn't essential.

Don't forget to duplicate on the disc label the program name, your name, address and phone number. If you want your disc back, enclose the correct amount in stamps.

Name ....Age..........years
Address ....
....
....
Daytime phone..After ....am
Evening phone..After.......... pm
Submission name ....
Submission size..bytes in total

NOTE: We will accept submissions up to 500k in total length, including documentation. But the shorter your submission, the better chance it stands of getting on to the disc. If it is a compiled or assembled program include all the source code, but do not count this in the size of the submission.

Write a brief description of your submission below. If it consists more than one file, describe what each file is for. Attach an extra sheet of paper to this form if necessary:

....
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Sign this declaration:

The stuff on this disc is mine. I didn't nick it off someone else. It hasn't been published before and I haven't submitted it elsewhere because I want *Amiga Computing* to publish it.

Signed..
Date..

Post your submission to: Jeff Walker, Amiga Computing, North House, 78-84 Ongar Road, Brentwood, Essex, CM15 9BG.

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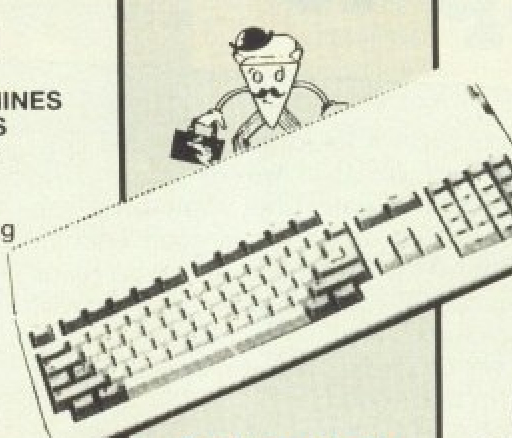
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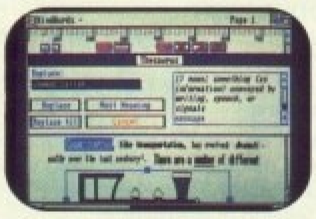
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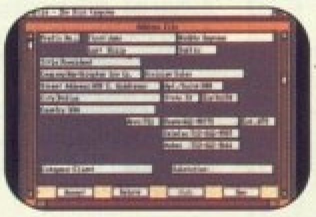
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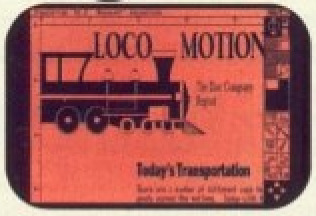
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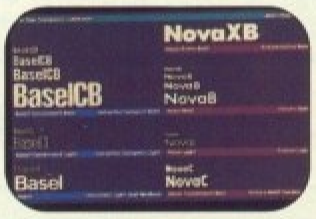
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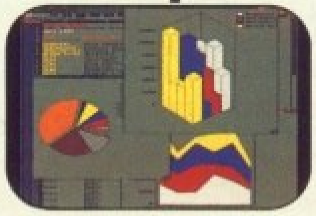
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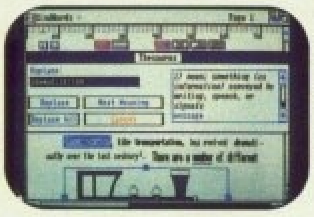
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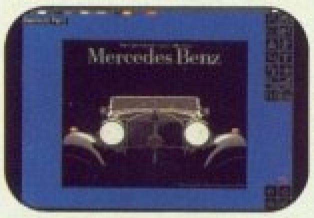
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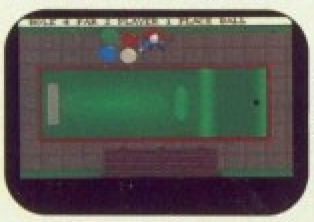
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The computing Aladdin's cave

THE Great Hall at Alexandra Palace will be transformed into an Aladdin's cave for computer enthusiasts in November when the UK's newest cross format exhibition, the Computer Shopper Show, comes to town.

Timed to hit the start of the peak pre-Christmas buying season, it is the result of a brave but well researched decision by organisers Database Exhibitions and is sponsored by Computer Shopper magazine.

Computer Shopper Show incorporates and replaces three established Database events, the Atari Christmas Show, the Electron & BBC Micro User Show and the Amstrad Christmas Show. It will retain all the machine–specific attractions of these popular and successful exhibitions, add more besides and serve up the resulting feast as one huge festive offering.

Something for everyone is the aim of the show which will open on November 24 and run until November 26. With over 200 stands, it has been supported by exhibitors from all major sectors of the popular market and is expected to attract more than 30,000 visitors.

"We knew the concept of an all-format event in the run up to Christmas was what people had been waiting for but even we have been surprised at just how great the actual demand has been", said head of Database Exhibitions, Michael Meakin. "The response from exhibitors and potential visitors has been far greater than we expected".

"For those three days in November the Computer Shopper Show will transform Alexandra Palace into the number one Christmas computer gift hypermarket this country has ever seen".

The importance of timing for the Computer Shopper Show was underlined by sales director for Database Exhibitions Mike Malone.

"Positioned right at the start of the peak buying period, timing of this show has been a key factor", he said. "It has appealed to both exhibitors and visitors alike. As our promotional campaign has got underway, space at the show has become hot property with the computer trade realising it is a must for their Christmas marketing plans.

"Similarly, the small business community and the computer buying public has realised that this will be ultimate venue for buying computer products. We are convinced that we have achieved what we set out to do - to turn the Computer Shopper Show into the world's largest pre-Christmas computer shopping opportunity".



When visitors enter the Great Hall they will be treated to a vast selection of goods from excellent hardware through the whole range of add-ons and peripherals to cut price games. Bargains galore will make it a must for the Christmas buyer and the sheer volume of stands will give visitors a unique opportunity to compare the prices and merits of exhibitors from throughout the UK - an impossible exercise in normal circumstances.

Not only will Computer Shopper be the ultimate marketplace, it is also designed to be fun - a real festive start to the Christmas run-up.

Typifying this concept, a circus theme will run throughout the three days and has been the basis of the high-profile promotional campaign. A robotic Father Christmas, wire walkers, stilt walkers, a strong man, clowns and even a baby elephant will be there to add to the atmosphere and help make Computer Shopper the greatest show on earth.

You chance to win a trolley full of goodies

YOU have been set loose in a a computer superstore to grab what you want. The time limit is tight, but the potential rewards are mouth watering. It's a dream that many may have had but for eleven lucky people it will become a reality at the Computer Shopper Show.

They will be winners of the various trolley competitions which have been running throughout the computer press and their reward will be that star in the competition prize firmament - the chance to complete a trolley dash.

Outside show hours the 11 lucky winners will be given a trolley, a time limit and some restrictions on what they can take then set loose in the Great Hall at Alexandra Palace. Before them will be the largest single collection of computer goodies to be seen in the run up to Christmas and free aisles to get round as many stands as possible.

A large percentage of exhibitors have agreed to take part in the competition and allow their stands to be visited, giving winners a chance to fill their Christmas stockings.

COMPUTER SHOPPER SHOW SPECIAL

Debut for latest products

MANY new product launches combined with firm favourites and a wide range of bargains will greet Amiga owners who visit Computer Shopper Show.

Choosing the show to launch a number of new packages is Digita International (stand B1a). Top of its Amiga list is System 3 an easy to use integrated suite of programs developed as the first step towards computerisation for the small business. System 3 includes cash-flow controller, invoicing, statements and stock control for £49.95.

Also for the Amiga is Digita's Cashbook Controller. Billed as the complete accounting solution for the small business, it costs £49.95. Stage 1 is a suite of business programs costing £49.94.

For release at the show will be Multigen, a new genlock for the Amiga which comes complete with its own processor, memory and power supply for approximately £250. And also on sale will be Home Accounts, designed as a complete home accounting package for a price of £29.95.

A range of games for the Amiga will be on offer from A & S Distribution (stand K18). "We'll be taking everything but the kitchen sink", said Alf Payne, who will also be offering joysticks on his stand.

Among the general supplies on offer from A1 Computer Supplies (stands E2, L2 and L4) will be a wide range of computer furniture, mice, software and discs.

Admincure (stand A10) will be offering a range of computers, printers and accessories. Among its stock of shareware discs and public domain software, Advantage (stand E12) will be hoping to feature Amiga games, education and business software programs. It will round off its stock with a selection of books and languages.

One of the top names in the Amiga world, Arnor (stands D3 and D5) will be using Computer Shopper Show to demonstrate its new database, ProData. Features include multiple indexes for accessing data, multiple segment indexes, a powerful filtering feature, comprehensive printing options, easy to use layout design and password protection for a price of £80. The Protext range of software will also be on sale.

Star's range of printers will figure strongly on the Athene Computers stands (C3 and C5) where Amiga hardware will be on sale along with over 500 discs of public domain software.

Audio Visual Research and 2Bit Systems (stand H12) will be showing an impressive selection of sound samplers which will range in price from £30 to £600 and will include A.M.A.S., its stereo sampler with built-in midi interface for the Amiga.

B Bytes Computer Systems (stand M14) has several new launches planned for the show including its Amiga card index file Supercard at £24.95.

Claiming to have produced a new concept in disc labelling, BlackStuff will be letting show visitors into its secret on stand F3. Its Polly Erasable Label kits are totally wipe clean.

As files are deleted and overwritten, the Polly label can be updated accordingly making scribbles and illegibile alterations a thing of the past.

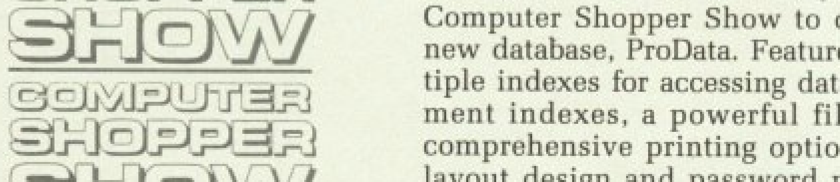
For £13.74 the kits are packed in a desktop canister which contains 50 everlasing labels, the solvent and erasure pen, fast drying fine line marker pen, cotton wipes and circular colour-coding labels to help disc classification.

Amten (stand C8) will be selling hard discs for the Amiga together with various upgrades and a selection of second hand hardware covering all formats.

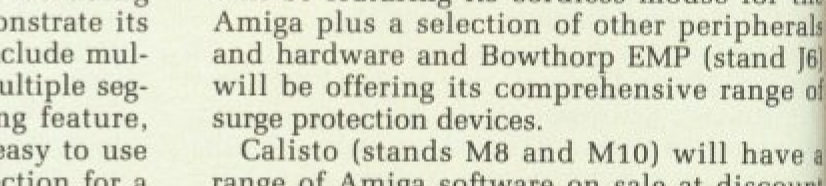
Bath Computer Shack (stands C2 and C4) will be featuring its cordless mouse for the Amiga plus a selection of other peripherals and hardware and Bowthorp EMP (stand J6) will be offering its comprehensive range of surge protection devices.

Calisto (stands M8 and M10) will have a range of Amiga software on sale at discount prices and a selection of printers will be offered by Caspell Computer Services (stand A3) along with its Ribbon Refresh package which allows up to 30 printer ribbons to be re-sprayed.

Club 6000 (stand L1a) is a mail order house specialising in discounted software for the Amiga range plus some interesting hardware



Dominion – Mission Software



Amos – Mandarin

accessories and a selection of surplus computer equiment across many formats will be on sale at bargain prices from Commonside Hardware Services (stand J7).

A wide range of good games for the Amiga at attractive prices will be on offer by Computer Communications (stand L6) and Computer Express (stand A1) will be selling a range of 16 bit computers together with software and peripherals.

A number of new titles will be on sale by Computer Manuals (stands S11 and M2) which will also be offering damaged books at knockdown prices. Computer Store (stand L13) will be catering for Amiga users with a range of blank discs, disc boxes, joysticks and disc drives.

Discount prices will be offered by Conceita Micro Systems (stand J11) which will feature a range of Deskjet printers and well known discs. From Dabs Press (stand K12) there will be a selection of new books in the Dabhand Guide series.

Diamond Computers (stand S25) will have a full range of hardware, software and peripherals for the Amiga. The keen competition for business which is one of the watchwords of Computer Shopper Show was underlined by Mike Brown from Diamond who would offer no further information for fear of letting the opposition know what he will be selling.

A selection of discs, disc storage boxes and Panasonic printers will feature on the Mediaware stand (S5). Dowling Computers (stand S17) will be offering Amigas, peripherals and a range of games and business software.

Star and Panasonic printers, discs, disc boxes and Amigas will be sold by Ealing Computers (stand B1b).

Equinox Business Systems (stand K3) will be offering its recently-launched small business accounts package SBA Plus. Written and developed by Equinox, the SBA Plus package is the next up-grade from SBA Xtra aimed at the maturing small business.

It features flexible invoicing with a product table or free format mode, an invoicing link with sales ledger and stock control, integrated puchasing links with bought ledger and stock control, complete sales ledger, multi-period VAT, library charts and accounts and the ability to act for more than one company. SBA Plus costs £199.95.

A new range of discs which feature software protection built into the shell will feature strongly on the stand of Escroe (A8). Escroe specialists in volume sales of discs ranging from 2.8in to 8in.

Evesham Micros (H16,17 and 18) will be concentrating mainly on hardware including external disc drives for the Amiga. In addition to stocking Amiga machines, it will also be selling memory and internal disc drive upgrades.

A wide range of discs will be the speciality of First Stop Computer Supplies (stand F7).

Launched earlier this year, the European version of the SupraModem 2400zi internal Amiga 2000 modem will be featured by Frontier Software on stand H10. The easy-to-install half card supports asynchronous operation at 2400, 1200 and 300 baud and is 100 per cent Hayes compatible retailing at £169.95.

"The 2400zi is unique in the Amiga market and has sold exceptionally well in the USA. We believe at our price, it is unbeatable for a modem of its specification", said Frontier's marketing manager Martin Walsh.

On the First Media stand (L18) visitors will be treated to what is billed as the largest collection of storage boxes in the country. Stands, copy holders and replacement mice for a wide range of computers will also be on sale at very competitive prices, said FM boss John Taylor.

HSV Computer Services (stand S9) will be offering a range of discs, ribbons and accessories and Hewson Consultants (stands M7 and M9) will be displaying its wide range of games software.

A selection of software including many top games will be on offer from In Store Marketing (stand M15) and Kador (stand M4) will have its range of seal'n'type protective keyboard covers, together with the Keytops series of stick-on labels for converting keyboards to other languages. The company will also be giving details of its courses on re-charging laser cartridges.

Kempston Data (stands H2 and H3) will offer the Kempston mouse at a price of £49.95 and the Kempston disc drive for the Amiga costing £89.95.

From Kuma Computers (stand M6) will come K-Comm 2, the Amiga to Psion link. It combines flexible bulletin board requirements, simple terminal emulation and viewdata fea- ▶

SOCK IT TO THEM!

WHAT is believed to be the world's largest Christmas stocking will be a feature of the Computer Shopper Show.

Fifty feet long, it will be suspended in the Palm Court at Alexandra Palace to be filled by teams of children collecting cash around the show.

Recipient of the proceeds, expected to be in excess of £20,000, will be Childline, the helpline for children in need. It is hoped that leading light of Childline Esther Rantzen will appear at the show and the stocking is being put forward for a mention in the Guinness Book of Records.

A special section for businessmen

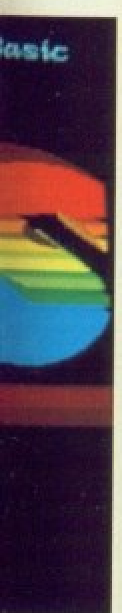
A SPECIALIST feature of the Computer Shopper Show has been designed to attract a minimum of 5,000 buyers from small businesses, many of them looking to purchase micros for the first time.

The Small Business Advisory Centre is a new concept developed jointly by Database Exhibitions and Computer Shopper magazine.

It will be supported by Apricot Computers which has agreed to link up with leading UK business software houses to present a non-stop display of the benefits of networking to small companies.

The Department of Trade and Industry will send along experts from its enterprise initiative scheme to offer advice and a leading firm of accountants will be there to give financial pointers.

"We are going to offer the small businessman the most comprehensive source of information ever provided at a computing event", said sales director of Database Exhibitions Mike Malone. "We are firmly convinced that no previous computer show has ever adequately addressed this area of advice for small businesses. Computer Shopper will fill that gap".



tures ennabling access to services such as Prestel, together with the ability to link the Amiga to the Psion Organiser. K-Comm 2 costs £29.95.

Kuma is also extending its Better English at a Better Price promotion on K-Roget until December 31. K-Roget is a computerised version of Longmans Pocket Roget's Thesaurus and allows users to select the most appropriate word from a database of over 150,000 words and phrases. The special offer reduces its price from £49.95 to £29.95.

Thingi Computer Supplies (stands M11 and M13) will debut Thingi, Thingi 2 at the Computer Shopper Show. The new document holder is a much enhanced version of Thingi 2, injection moulded with a special gravity clip allowing documents to be positioned. It costs £8.61.

On the Llamasoft stand (M17), the company's best-selling ST package TripaTron will make its debut for the Amiga. Incorporating stunning graphics which respond in time to music, it costs £34.95

A range of software, peripherals, disc boxes and joysticks to cover all formats will be available from MCD (stands B12, G13,15 and 17) and the peripheral market will also be served by MD Office Supplies (stands A2 and S15). Main Media (stand B2) will be selling discs disc boxes and accessories.

Database Publications (stands B6, B8 and B10) will have current editions of its five computer titles on sale, including Amiga Computing, plus back copies for readers to fill in their collectons with issues they may have missed.

Mandarin Software (stand J18) will be using the Computer Shopper Show to demonstrate Amos, its games creation package for the Amiga. Sister product to STOS on the ST, it is scheduled for release in January.

Amos allows programmers to design their own games in an easy-to-learn Basic language environment offering great flexibility and making best use of the Amiga's unique set of hardware chips. It will cost £49.95.

Magnetic media, data buffers, disc drives and uninterruptable power supply systems will be among the range of computer accessories from Manor Court Supplies (stand G18) and Megaland (stand S7) will be doing good deals on Commodore computers.

Memory Expansion Systems will be selling a range of expansion boards for the Amiga on stands B7 and B9 and another offer of bargain prices will come from Micro Supplies with its wide range of both software and hardware products on stands A5 and A7

Special show prices on Amigas and a variety of peripherals and software will be the attraction from Micro Anvika (stand S1)

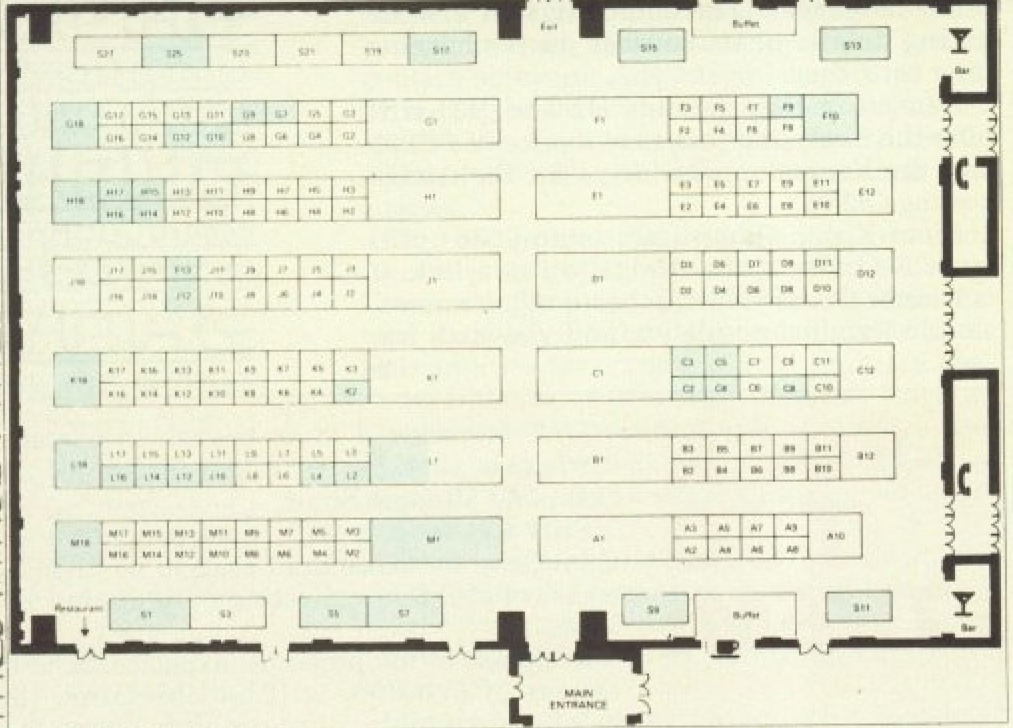
On offer from Modem Marketing (stand A9) will be its new EC2400 modem which was launched earlier this year. The package covers all four speeds currently used worldwide including V22bis, and is fully Hayes compatible at a price of £279.

Discs for all machines will be among the OMD products on stand M18; a selection of discs, storage boxes and mouse mats will be available from Quantum Computers (stand L8) and Reflex Magnetics will be selling a wide range of discs on stand M5.

VIDI, the Video Image Digital Interface which allows pictures to be grabbed from video, will be on sale for the Amiga from Rombo Productions on stand M12. It costs £99.95.

How to find your way round

The blue markers indicate stands stocking software and hardware for Commodore computers.



So easy to get there

EXCELLENT communications make Aledandra Palace the ideal venue for the Computer Shopper Show. By road, the show is just 15 minutes from junction 25 on the M25. There is free parking for hundreds of cars.

For rail travellers, Alexandra Palace has its own British Rail station a nine minute journey away from Kings Cross. A free shuttle bus connects the station to the show.

Admission charges are £4 for an adult and £3 for children under 16 with a £1 discount for prepaid tickets. A special prepaid family ticket is also available for £9 which will admit two adults and two children. Prepaid prices can only be obtained by pre-registering on the ticket hotline, 051-357 2961.

The show is open from 10am to 6pm on Friday and Saturday, November 24/25 and from 10am to 4pm on Sunday November 26.





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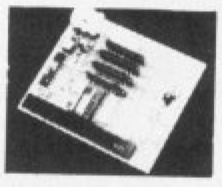
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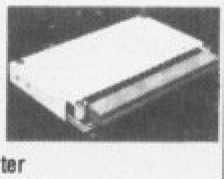


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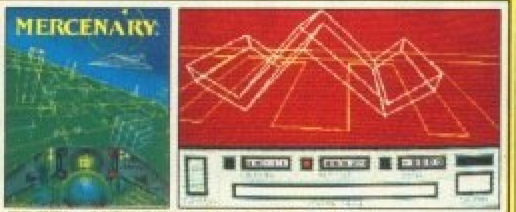
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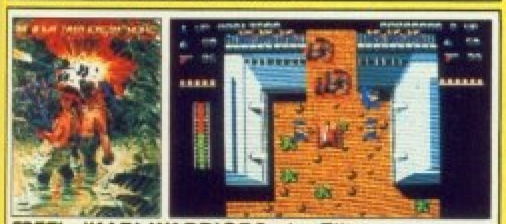
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Before you decide when to buy your new Commodore Amiga computer, we suggest you consider very carefully WHERE you buy it. There are MANY companies who can offer you a computer, a few peripherals and the top ten selling titles. There are FEWER companies who can offer a wide range of products for your computer as well as expert advice and help when you need it. There is ONLY ONE company who can provide the largest range of Amiga related products in the UK, a full time Amiga specialist technical helpline and in-depth after sales support, including free newsletters and brochures delivered to your door for as long as you require after you purchase your computer. That one company is Silica Shop. We have been established in the home computer field for ten years and can now claim to meet our customers requirements with an accuracy and understanding which is second to none. Here are just some of the things we can offer you:

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When you buy the Amiga 500 from Silica Shop, you will not only get a high power, value for money computer, we will also give you some spectacular free gifts. First of all, we are now including a TV modulator with every A500 stand alone keyboard, so you can plug your Amiga straight into your TV at home (the modulator is not included with the A500+A1084S pack as it is not required for use with monitors). Secondly, we have added a free copy of Photon Paint, an advanced graphics package with an RRP of £69.95. Last (and by no means least!), so that you can be up and running straight away, we are giving away the sensational TENSTAR GAMES PACK with every A500 purchased at Silica Shop. This pack features ten top Amiga titles which have a combined RRP of nearly £230! Return the coupon for details.

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No harm done

What is the truth behind software theft? Peter Rivetts investigates





RIGHT now, this minute, there is someone dropping a disc in the post, or transferring a file by modem. Commonplace events among commonplace people. But these people are different. The disc contains illegally copied programs being sent to someone who has not paid for them. The files they are transferring are not theirs to upload.

They are the crackers.

Is their existence detrimental to the computer industry? Listen carefully as massed ranks of programmers leap as one to their feet and shout "Yes". They can sit down now. They have a vested interest. Listen again, and hear the crackers and the recipients of their copied software say "No". They too have an interest in this.

Let's step back and look at the issues. First, the two forms of piracy. Two forms you say? Yes, counterfeit and cracking. Counterfeit is rife in many industries, duplicating anything from perfume to plastic pearls. Ripping off packaging and designer labels to pass it off as the real thing. No one can condone this. It hurts everyone.

You buy Zappow2000, the fantastic new game. When you get home its packaging is not as good as it should be, but you play the game anyway. Your money has gone into the pockets of a criminal who made that fake. If you buy a word processing program and need support from the authors you'll be distressed to find that had you bought a fake the authors won't help.

So, counterfeit is wrong. But what of cracking? It doesn't do anyone much good. What crackers do is take programs and remove their protection so they are easily copied. Then programs are swapped between cracking groups, who compete to get the newest games out first.

Very little serious software circulates this way, mainly because the crackers tend to be kiddie shoot-'em-uppers who wouldn't know a good word processor if it leapt into their disc drive and typed the works of Shakespeare without the monkeys being in the room.

What *do* get around are beta test versions of games, mega-trained ones that have been modified to make them easier to play, or crunched versions of games on release. The crunched software tends to come with a number of other crunched games on one disc, all squeezed on so that the crackers can impress fellow groups with their cleverness.

And all these cracked discs carry the modern irritation of computing – the demo. In the good old days (1986), demos showed off what the machine could do. Joe Public was well impressed. But cracker demos tend to be all the same. Pretty coloured screen – look, he can use the copper – pretty scrolly picture – er... and the blitter – electropop music which goes on and on, and daft scrolling text, of the "Hi from Smegman of the Smegs and here is our latest disc so ya boo sucks to the noztrils of" type. Pretty for 30 seconds, useless thereafter. And usually as Amiga friendly as Jack Tramiel with a machine gun.

CRACKERS who write demos always go and beat metal with astounding regularity, with no care if it's upwards downwards or standing still compatible. They all seem to use two drive, one meg, A500s, and it's tough luck if you don't because these demos will break if you have anything else.

The demo reaches new levels of tedium with the mega-demo. Whole discs of demos, each one doing something more mind numbing than the one before. The crackers think you'll be impressed by 64,000 bobs on the screen. I'm not, and most people aren't. 64,000 bobs in a game would be a different matter, but your average cracker is too dumb to think of writing anything as complicated as a game.

As for the infantile groups themselves, they're like a cross between train spotters and D'n'D freaks, all trapped in their very silly world of swapping discs and writing demos. They seem to live in the postal version of cyberspace, oblivious of the world outside.

All pretty negative stuff. It's a pity really, because in that vast array of computer freaks there are occasional

▶

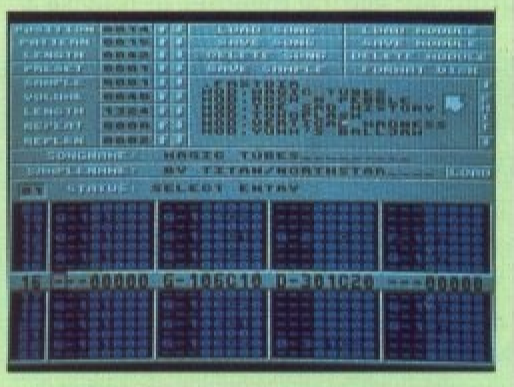
This has been a journey into sound, Amiga-stereo sound

SOUNDTRACKER treats music as numbers, not blobs on a staff. It divides up music into four tracks – one for each Amiga voice – of 64 events. Each event can be either empty, or signal a change to the sound playing on that track. You can have as many patterns as required and change their tempo, repeat or loop them to form music.

Initially this appears to need a lot of effort, but after you have the hang of the basic controls, Soundtracker works like a smart sequencer.

The latest version is v2.4. It has the ability to play 32 samples, known as presets in Soundtrackerese, previously the limit was 16 samples. There is a preset-editor with which you can manage your library of presets. This can be used as a separate utility. There are print options and lots of little useful goodies like a filter switch and a bug fix to make it friendlier to hard discs.

Because it is no longer a commercial program, Soundtracker hasn't been properly tested. It's got a lot of bugs in all the new parts of code. Version 2.4 is a master of confusing its screens with multicoloured garbage and then crashing. It's not OS legal, so won't multi-task, and still has disc names



Soundtracker – the DOC version

for the preset library hardwired in. This is all very much in the style of the development of cracked Soundtracker, and it is a frequently voiced wish when Amigaphiles gather that the people who work on it should do a new commercial version.

But recently Soundtracker clones have started appearing, like Linel-Tracker, Pro-Tracker, Sidmon and Seq, all looking superficially like Soundtracker but often with major improvements internally to the code, and externally to the user interface.

Hopefully someone will write the definitive clone, Real Soon Now and then everyone can get down to exploiting the Amiga sound system the way Soundtracker users can.

◄

glimmers of goodness. Like Soundtracker.

Let me tell you the story of Soundtracker. Once upon a time, a German person wrote a rather average music editor called Soundtracker. It wasn't a masterpiece of code, but it was particularly liked by some German crackers who managed to get their hands on the source.

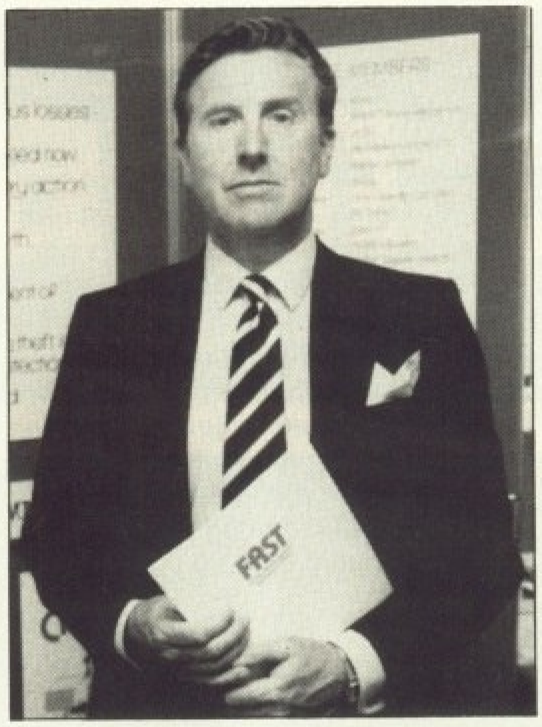
And they sat down and worked on it, tweaking and adding, changing and improving it. It's now the most popular Amiga program you can't buy.

Dozens of games out there have Soundtracker soundtracks. In its most recent incarnation it's a quite good music program, and almost all the demo writers use it.

Programming wise, it still is a mess. The cracker's code is leaping off into rom, fiddling with structures and generally abusing the operating system. To crackers, that doesn't matter, but to the rest of the world, kicking your hard disc controller into space is at least an irritation.

Some crackers and the original author are getting together to release a new commercial version, properly finished and hopefully OS legal. But crackers are snobs, and don't like muddying their hands with commercial software writing.

Well, most don't, some have made the leap into commercial software and the programs (no names, no pack drill) are quite good. But the rest of the energy of other crackers just goes to waste in a macho fantasy.



Bob Hay of FAST – 01-240 6756

The macho id breeds strange ideas into these folks. Like "C is for wimps, real men use 68000" and "Amiga operating system, yes that's the thing you kick out of memory first" and "Copper lists are for hacking and appending". All of which makes no real sense to anyone who spends five minutes with anything *but* the hardware reference manual and the odd Abacus book.

You aren't going to stop crackers, try as you might. You can help by not taking the software, or at least buying games you like when you see them on a cracker's disc. Telling the crackers their acts are illegal is a waste of breath. All you can really do is try and talk them into doing intelligent things with their Amigas.

Say to your local cracker: "So what? Any idiot can trash the machine and do pretty demos. Getting rid of protection is very clever but you aren't actually making anything". Are you listening crackers out there?

Real programming is a lot more fun. Writing programs that *do* things. It's why I and a whole lot of other people like the Amiga. Sit down and write a game, it's a whole lot more fun than writing a two- bit demo that will be in the "For formatting" pile at the end of the day.

Meanwhile, software developers, you might as well ignore these folks, because quite honestly no matter how clever a protection you put on your discs, crackers will get through it. It's not that they are smart, just persistent. No protection scheme can survive constant bombardment.

Programmers, get back to producing great software for the Amiga. Help organisations like FAST – the Federation Against Software theft – chase after the criminals. And please, stop putting those daft protection schemes on discs which just make life difficult for the legitimate user.

Nobody comes out well from this look at the world of piracy. The crackers are so disorganised and so macho motivated that you'll never stop any more than 10 per cent of them even if you try really, really hard.

And the crackers themselves have yet to realise that they are engaged in one of the most futile and dumb pursuits known to man, called achieving nothing.

Pirate-proof computers

COMMERCIAL programmers would like to see each computer built with a unique serial number in the rom. Modern mass production techniques make this economically possible, although it does mean using more expensive chips. When you buy a program it could use this code to decrypt the disc in a way which meant that it would only run on your machine.

It is an idea which has been proposed for the Amiga 3000, but that is a 16Mhz, 68030 Unix workstation. There won't be many kiddies in the playground with one of those.

But many people buy a computer because they know they can pirate software from friends. So it is not in the hardware manufacturer's interest to produce a pirate-proof computer. Some crackers even argue that because piracy helps sell hardware there are more customers for software in the future. In the end it's all down to conscience.



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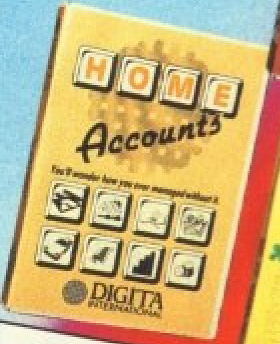
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Ripping yarns

Nic Veitch enters the world of Microdeal's interactive program creator and lives to spin the tale

WANT to hear a success story? Well, once upon a time there was a man with a computer and a son. Both were very good at drawing. The man decided to get them both together, so he wrote a program.

He looked at the program and the program was good – but it could be better. So he developed mouse handling routines, drawing conditions, links and variable definitions. The man took his adventure writing utility – for such it had become – to Microdeal, which signed it up. And he lived happily ever after.

Now Microdeal hopes it can do the same. Talespin, incorrectly called an adventure *game* on the disc label, is a utility designed to help you make your own adventures, although Microdeal adds somewhat reservedly that it is useful as a teaching aid or for business presentations as well.

Programs created with Talespin are icon driven. This is a bit of a misnomer, because the icons are actually part of a picture. As far as the user is concerned though, he or she is just clicking on an area of the picture and not an isolated icon.

This effect is achieved by defining each part of the picture separately and then overlaying them all, rather like the way an animation cel is built up.

Pictures can be drawn with the en suite art package or standard IFF files may be imported. At least that's what the manual says. The IFF files in question are only allowed to be 320 x 200, 16 colours – the NTSC standard favoured by the colonials. If you try loading anything else, it won't crop it – it won't take it at all.

This would not be the end of the world – nor indeed the end of the program – if it were not for the fact that the graphics package included is so primitive. Perhaps I am asking too much, but using an art package without a brush cutting option and associated tools sends me straight for an Aeroflot sick bag. (They are the biggest.)

As John Symes of Microdeal explains: "The graphics package is not terribly good – but we always envisaged people using Neo or Degas *(two ST art packages)* and then importing images into Talespin. The internal package is really just for touching up and changing the colours".

This may account for the rather far-out artistic style on the sample adventure included on the disc, which I had previously assumed to be attributed to an intimate knowledge of controlled substances, and I don't mean Apple roms.

THE sound side of things is a little better, but this may be due to the fact that all it has to do is import samples and tag them on to the pictures. You can copy sounds which have been tagged on to other pictures or projects as well, but this is accompanied by a bad bout of disc swapping and menu clicking.

Sound can be replayed at a number of different frequencies, useful for trying to make out that you have more samples than you actually do.

If you want nice effects on your own work then you will have to buy your own sampler and software. There are no facilities for editing sounds at all in Talespin. Presumably Microdeal reckons you need a sampler to import your own sound, and if you have a sampler then you probably already got some decent software to drive it. Fair enough, I suppose.

A demo mode can be set up to cycle through the screens and perform actions in a predetermined order. While this is not so useful for an adventure, it could be very handy if you want to create business demonstrations.

Menus are not the usual pull-down type, but are large speech balloon things which invert text on the option chosen. True Amigans will be ill at ►



Drawing conditions decide which graphics appear, and at what time

Child's play to link pictures and sound to produce a story

PICTURES and sound can be easily strung together in Talespin to make a story. This is achieved by using the program's variables, which are not quite true variables but are more like flags with a discrete number of values.

Choices are made by clicking on an area of the screen or highlighting an area of text with the mouse. These actions can then be interpreted to change the screen, play noises, change variables and so on.

For example, in an adventure story say you want to be able to go to a location and pick up a disc. First of all create the graphic for the disc and import it into Talespin. Then from the main menu choose Add Picture To Page.

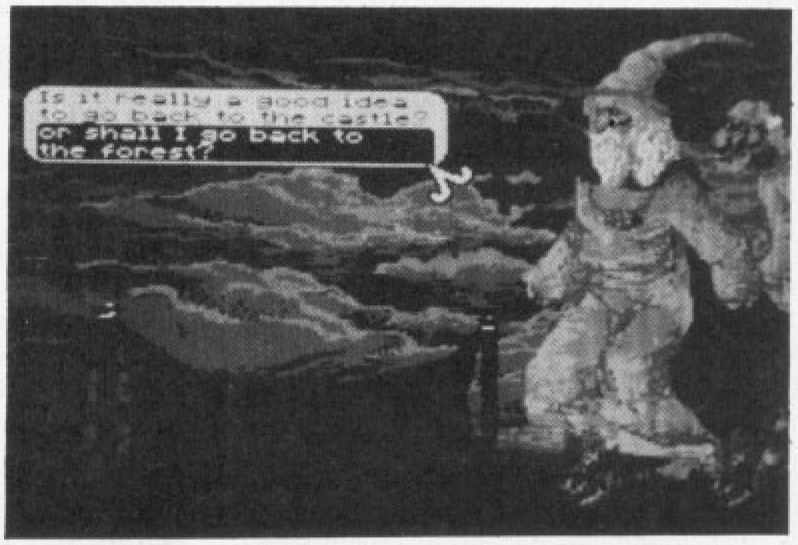
After specifying the page, go to Variable Definitions, define a variable – let's call it *flag* – and give it two possible values: 0 or 1.

Set the entry condition for that page to zero. This means that when the program first enters that page, it will assign the variable *flag* to be have the value of zero. Add a drawing condition to the disc picture to prevent it being drawn when *flag* becomes 1.

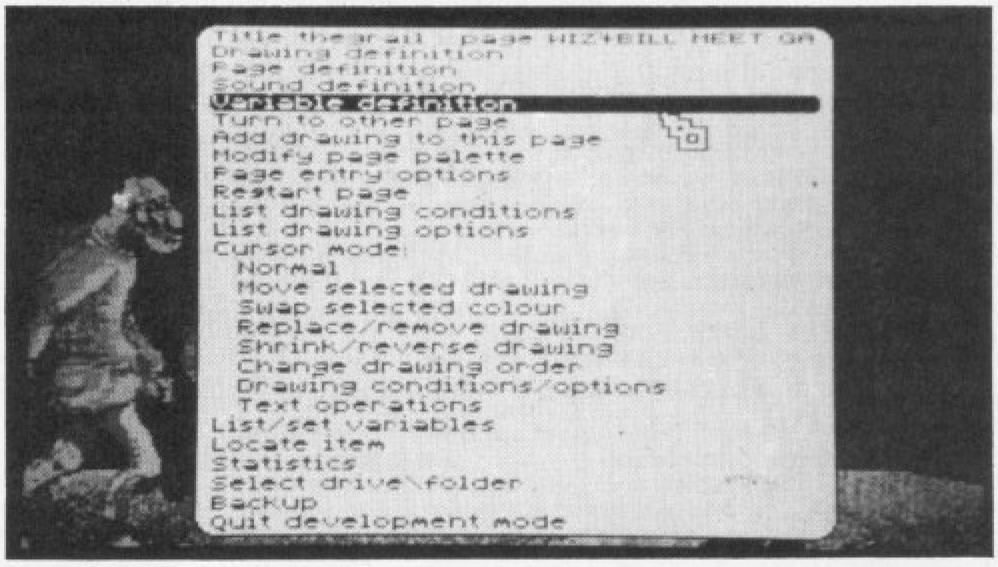
Now add the condition to the drawing that it sets *flag* to 1. This means that when the drawing is clicked, the value of *flag* will change to 1, the drawing condition will no longer be met, and it will be removed.

Follow that? It's a lot easier following the menus because they are in plain English. The above set of operations will put your image on the page. When it is clicked it will disappear, as though it has been picked up.

From this example it is easy to see how this simple method of using variables as flags can produce some seemingly complex interactive systems. Sound effects, text and further screens can be added as options in just the same way as the variable was changed. It really is easy enough for a child to use.



Decisions, decisions ... but there'll be hundreds more like this before the adventure is over



Below, the main developing menu ... programming starts here

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ease in this unfamiliar environment.

The pointer has mutated into a great clumsy ornate arrowhead and the "busy" alternative has turned from the reassuring sleepy cloud to a strangely familiar looking bumble bee. Hmmm.

There is a modest online help feature, which is not context sensitive and only useful to the absolute beginner. Nevertheless, brownie points are awarded for its inclusion. All the menu options are fairly easy to understand, so you shouldn't need to have one limb in the manual all the time.

Ah, the manual. I knew I had forgotten something. Well, it's quite easy to really. It is well written, but so much of the program is intuitive and easy to use that there isn't a lot of point in looking at it more than once.

I looked at it about seven times in order to see if I was maybe missing something – but no, that's all he wrote, to corrupt the yankee vernacular.

The cunning idea of writing one large menu in easy to understand language has put an end to the manual being a creative requisite for decoding the options. It is quite possible to use this software without ever having seen the manual at all.

Talespin is being deliberately mis-marketed. It was originally written for children to use, and it shows. All the features, right down to the menus and the shape of the pointers, have been designed with children in mind. That is not to say that it is inferior or non-professional, merely that it was designed for a different objective – one which it is much more able to accomplish.

John Symes himself used it to help his son learn to count, a task which it can perform admirably. With its completely icon-driven system, the kind of environment used by most education packages, it is very suitable for children to learn from. All the elements of early education are

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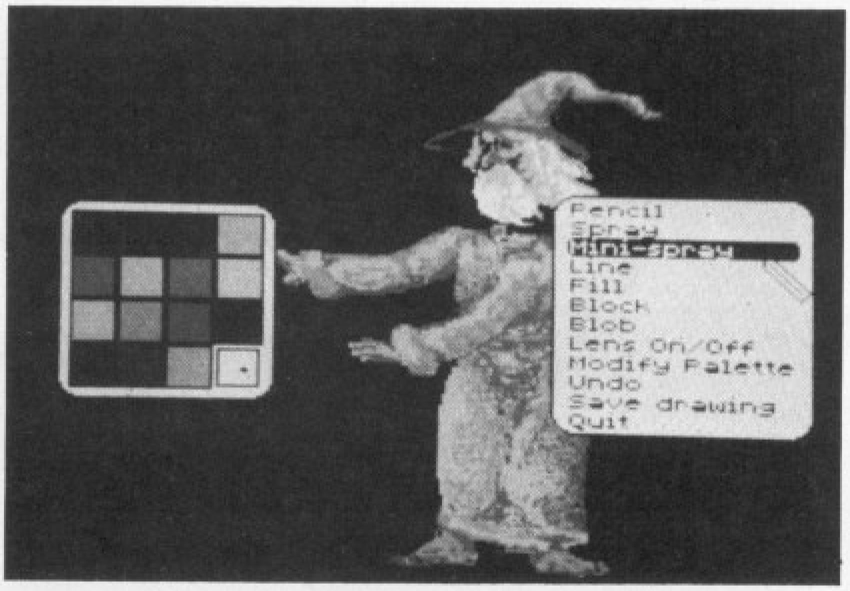
◄

present – pictures, sounds and interaction.

With the negative stigma which has attached itself to educational software in the UK, it is easy to understand Microdeal's reticence to bill it as such. Talespin does have the ability to create quite complex adventures, but not of the same style as those currently popular in this country.

The whole system is geared towards a multiple choice type of construction. In adventure terms this means the kind of thing that appears in the game books very popular with younger adventurers.

The case for the prosecution rests. In its defence, Talespin proves that you don't have to spend lots of money on A2000s and video discs to be able to write interactive teaching programs. In this respect, it almost shines.



You'll need a good art package. Talespin's graphics editor is next to useless

REPORT CARD

Talespin
Microdeal 0726 65422
£29.95

EASE OF USE....
Designed with children in mind.

SPEED ....
Hampered only by simplistically structured menus, but it was designed that way for a reason.

VALUE ....
Depends on what you want it for. Add three for if you're looking for an interactive teaching aid.

OVERALL 74%

Thumps up for education, thumbs down for serious adventuring.

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***Printer** 1. A person or business engaged in in printing. 2. a machine or device that prints. 3. Computer technology – an output device for printing results on paper.*

FAR be it from me to criticise the Collins English Dictionary, and while I certainly wouldn't disagree with the above definition, I think there's a case for adding *4. Citizen 120-D, the best selling 9-pin printer in Europe.*

If you ask most owners of lesser machines than the Amiga what printer they have, the odds are that they will have a Citizen 120-D, a printer that combines respectable 9 pin performance with a very low price.

Amiga owners, being somewhat more discerning, need something a little better, and Citizen may just have come to the rescue of those people who broke their piggy bank buying the Amiga in the first place.

The Citizen Swift 24 is, as its name might suggest, a low cost, speedy 24 pin printer, which Citizen naturally hopes will do for the 24-pin market, what the 120-D did for the 9-pin. Consume it alive.

For £389 (not including VAT) you are paying for a chunky, yet stylish looking printer, 41cm in width, 32cm in depth and 13cm in height, a dimension to which the addition of the single sheet feeder adds to considerably. It's a small footprint for a 24 pin printer – they normally give the impression that the foot consisted of several elephants.

As well as a standard tractor feed, which is easily removed, there is the single sheet feeder as mentioned, which is notable for its sturdiness.

Single sheet feeders are normally terribly wobbly and sloppy, but this one has some backbone. Usefully, it also has notches and symbols to mark the maximum paper width, and also where to set the guiders for A4 paper. No more printing and guessing.

One thing I wasn't too hot about was the hinged smoked plastic part of the cover. When closed it keeps the noise level down to less than 55db normally or under 52db in the slower quiet mode. But it forces the outcoming paper out at a sharp angle, risking the paper being re-fed and ruined.

It's simple enough to correct, you just have the top at a 30 degree angle, but there is more noise.

The small light which glows when the paper runs out has its function duplicated by a warning on the eight character, two line liquid crystal display. Dropping a sheet into the feeder while off-line results in the paper being sucked in.

The parallel interface comes as standard, but there is the option of installing a serial interface. More useful options include a colour kit and font cards. The lid on the serial interface and font card area doesn't have a fixed hinge, so once opened comes off in your hand. Don't panic, it's equally easy to refit.

There are menus covering emulation, font, copy mode, line spacing (6 or 8 LPI), normal or colour ribbon and character set (which ranges incredibly from the obvious UK and USA, to Denmark, Sweden, Italy, Japan, Latin America, legal, France and others).

Beside macro 1 there are a further three macros available for less obvious computer-printer configurations. All macros can be defined to match your computer setup.

Once redefined, you can save your macro permanently into the printer's eprom (electronically eraseable programmable rom), which will not only survive a power off, but when the printer is next switched on will automatically load as the chosen macro.

You should note that although the manual states that you can redefine certain selections without having to save the entire macro into memory, they will reset to their original selections unless you actually have saved the macro.

There are three types of printer emulation predefined in the macros, Epson LQ850, IBM Proprinter X24 and NEC P6+.

A couple of the other external features are a paper adjuster which can accommodate paper from 0.06 to

No more broken fingernails

INSTEAD of the nightmare world of DIP switches, the Swift 24 is armed with an eight key control pad and an LCD. When you switch on the printer it loads macro 1, a predefined choice from the menus covering all aspects of the printers capabilities.

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ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz

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TIMES ROMAN

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HELVETICA

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Four NLQ fonts are built in

Pin money

Is the Swift 24 something to crow about? Do you find Citizen's figures hard to swallow? Duncan Evans takes a gander



0.1mm in thickness, and the large plastic switch to go from fanfold to single sheets of paper.

Peering into the guts of the machine reveals a print head with a large heat sink on top, which works very well since the printer wasn't particularly warm after I'd left it on for most of the day. Power consumption is a reasonable 90 watts.

For quality printing there are four NLQ fonts and one draft. These use 360 dots per inch for NLQ and graphic modes, and 120 DPI for the draft mode.

The fonts which are built in are quite nice except for the horrible sans serif face, and include Courier, Times Roman, Prestige, Helvetica and draft. Of course there's the option of plug in font cards from Citizen, or software driven fonts from your Amiga.

The print head itself has a life expectancy of 200 million dots (it must have been dull counting them) while the rest of the moving internals will see you through 4,500 hours. That might not sound a lot but if you used the printer for say 22 hours a week (which is seriously heavy usage) then the poor Swift would only fall

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over after about four years.

One feature that helps keep that speed up is the printer buffer, which can store 8k of data. A really nice feature is that the LCD tells you what percentage of the buffer is full of data, so you can see roughly how long a document is going to take to print.

The output is pretty good, but not lipsmackingly amazing, which is to be expected since this is a budget 24 pin printer.

So that's the printer for you, and a delight it is to use as well. But what's the documentation like? The dreaded printer manual?

Thankfully since this one comes from Citizen Europe, as opposed to Citizen Land of the Rising Sun, it's in English, readable, helpful and informative.

Starting with how to unpack, assemble and set up for your first print run, the manual takes you through an excellent section on getting the printer to work with various computers, to a full and frank expose of how to program and control the printer yourself. Not a section for beginners. And remember that if you want to send funny commands from AmigaBasic you'll need to open a file to the printer. A simple LPRINT filters out clever codes.

Really swift?

SPEEDWISE manufacturers make great claims for the printer that all defy reality. If the designers think that 53 characters per second in NLQ mode (at 10cpi, or 64 CPS at 12cpi) is fast then I wouldn't like to see a printer they thought was slow.

For just chucking out reams of data the speed rises to a respectable 160 CPS at 10cpi, and almost 9 pin speeds with 192 CPS at 12cpi. But if you wanted fast and cheap output then you wouldn't buy this printer.

The speed for decent quality output is disappointing. All of which makes the title Swift 24 something of a misnomer. Stride 24 or maybe even Hasty 24 would have been more accurate. Doesn't sound as good? Oh well, that's marketing for you.

With a two year guarantee from Citizen, a set of decent quality typefaces built in supplemented with the option to add more, reasonably spritely printing speed, a clear and useful manual, you have all the ingredients for a nice printer. Size is just the icing on the cake.

REPORT CARD

Citizen Swift 24
Citizen Europe 0895 72621
£389 (ex VAT)

EASE OF USE ...
Good, sensible replacement for DIP switches. Meaningful LCD messages.

SOFTWARE ....
Supported by a wide variety of the Preferences printer drivers

SPEED ....
Fails to live up to the Swift name but still satisfactory.

VALUE ....
The best buy in 24 pin printers.

OVERALL 80%

Beats the opposition. For the moment.

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technology (tek'n-o-lo'ji) the application of practical mechanical sciences to industry or commerce.

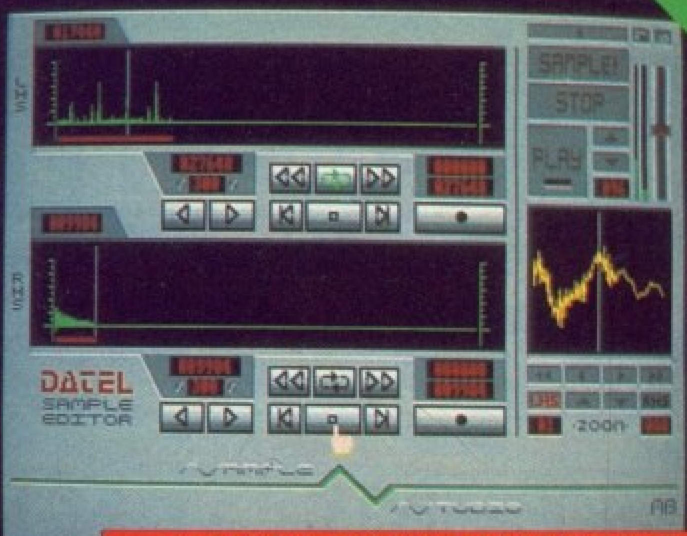
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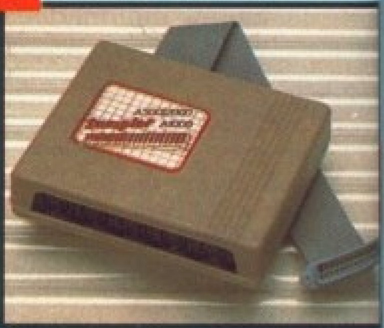
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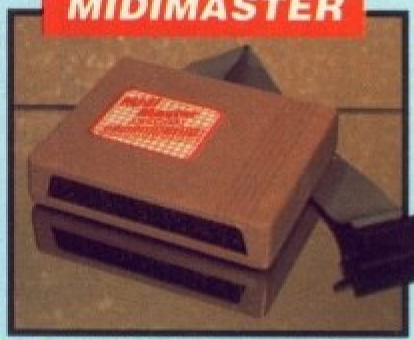
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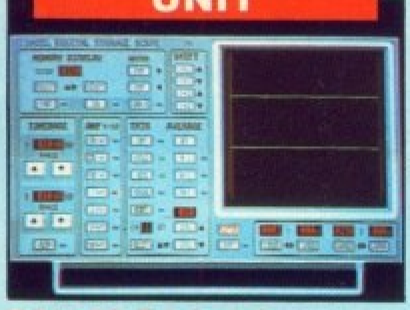
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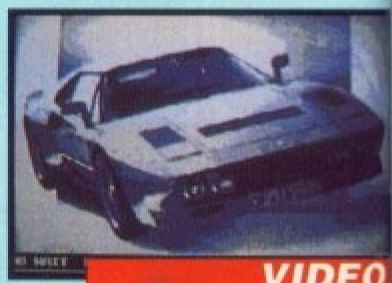
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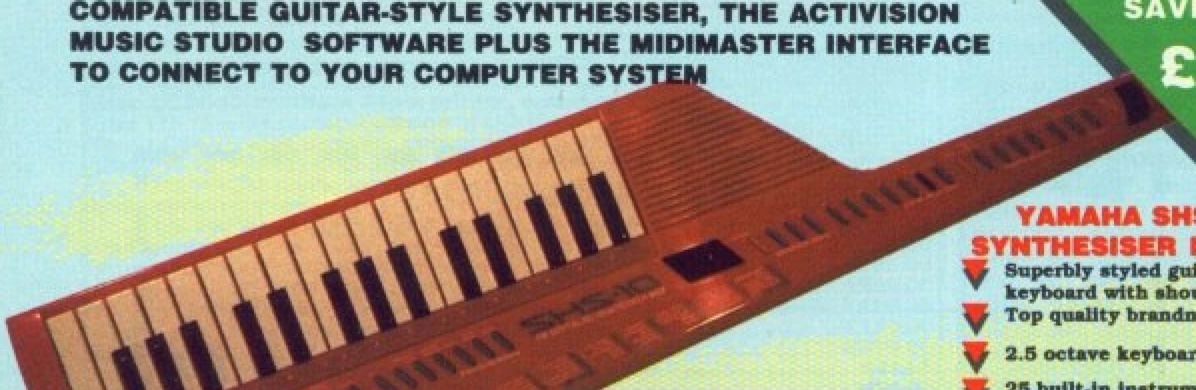
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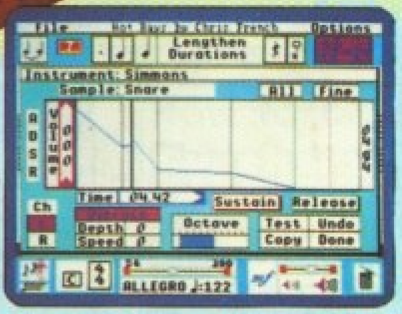
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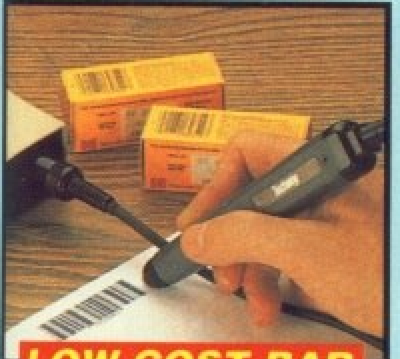
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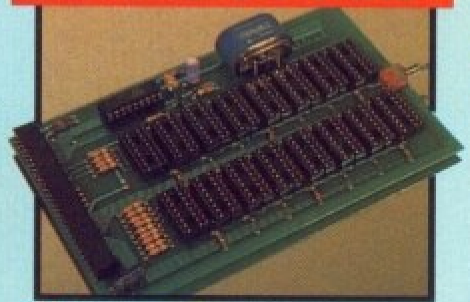
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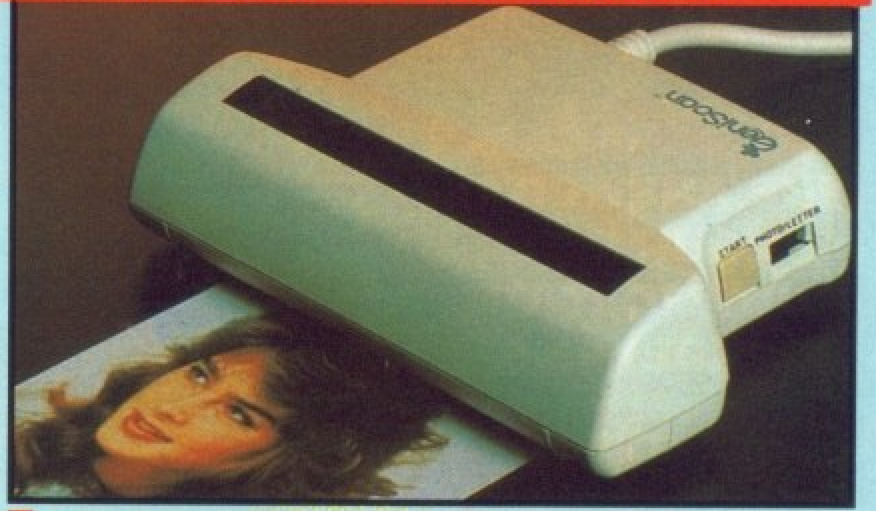
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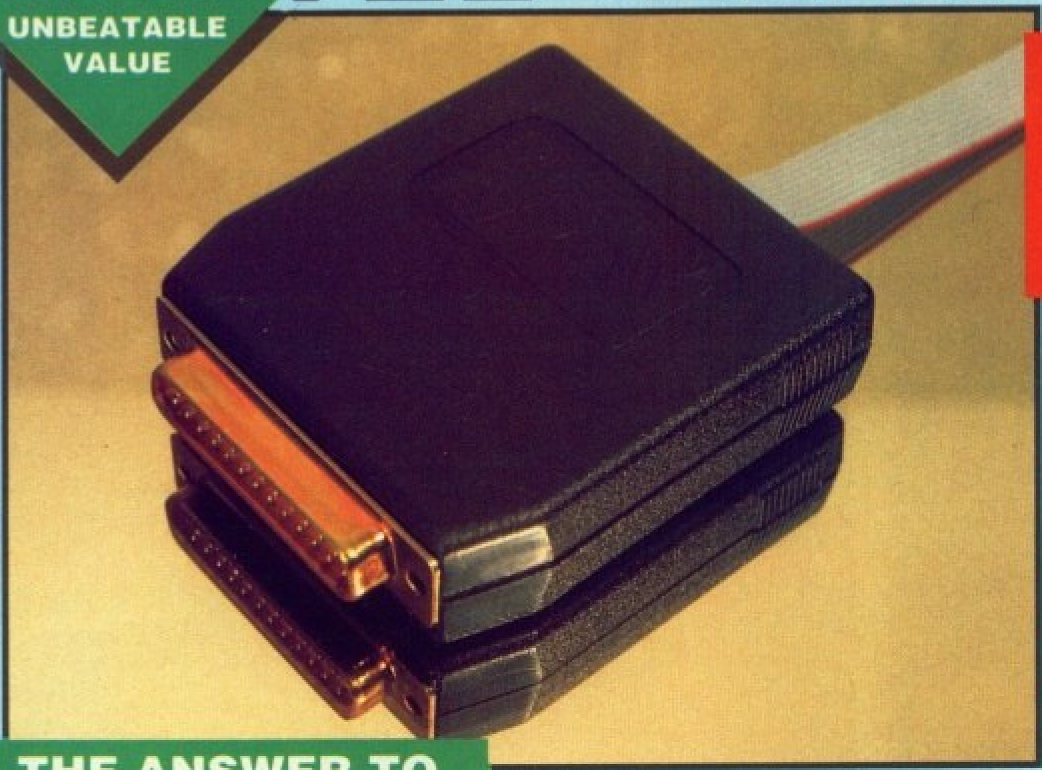
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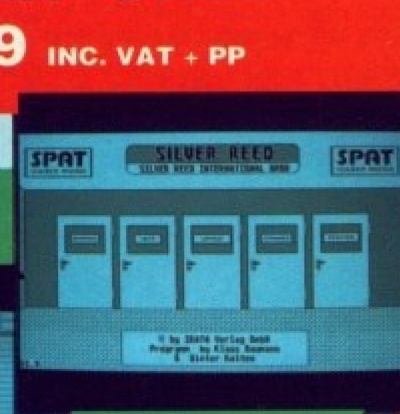
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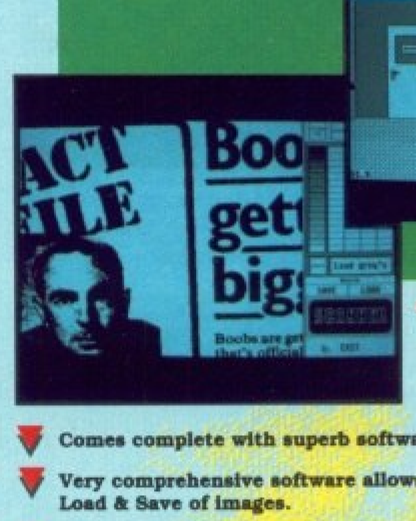
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Right on the button

Collision detection the hardware way is easy when Jolyon Ralph shows how

COMMODORE doesn't like to admit it, but the Amiga was designed as a game machine. It doesn't go down too well with the business community that the Amiga's custom chips were built to work out with great accuracy whether or not your tri-nucleon pulse meson beam has just knocked out another invading hoard of alien mutants.

Custom hardware is the key to allowing the Amiga to multi-task, something which the competition in the business market still can't get working efficiently.

The Amiga's custom chips contain special circuitry to detect collisions between objects on the screen. These objects can be either sprites or playfields. The Amiga has eight sprites – four in overscan mode – and either one playfield containing up to six bitplanes or two playfields in dual playfield mode containing up to three bitplanes each.

If you have set up a display consisting of several playfields and sprites you have to tell the system in which order you want to display them – whether you want the sprites in front of the playfield, behind the playfield or in between two in dual playfield mode.

This is done with by setting the "video priorities" in the BPLCON2 hardware register ($dff104).
Sprites have a fixed priority relative to each other. If all eight sprites are set to overlap, you will see that sprite 0 appears to be on top and sprite 7 at the bottom – that is, it has the lowest priority. You cannot change the priority of the sprites relative to each other.

VALUE – SCREEN PRIORITY
000 – Playfield above all sprites
001 – Sprites 0 and 1 above playfield, others below.
010 – Sprites 0 to 3 above playfield, 4 to 7 below.
011 – Sprites 0 to 5 above playfield, 6 and 7 below.
100 – All sprites above playfield.

Figure I: Playing priority relative to the sprites

BIT – CLXDAT COMPONENTS
15 – Not used
14 – Sprite 4/5 collision with sprite 6/7
13 – Sprite 2/3 collision with sprite 6/7
12 – Sprite 2/3 collision with sprite 4/5
11 – Sprite 0/1 collision with sprite 6/7
10 – Sprite 0/1 collision with sprite 4/5
9 – Sprite 0/1 collision with sprite 2/3
8 – Even bitplanes with sprite 6/7
7 – Even bitplanes with sprite 4/5
6 – Even bitplanes with sprite 2/3
5 – Even bitplanes with sprite 0/1
4 – Odd bitplanes to sprite 6/7
3 – Odd bitplanes to sprite 4/5
2 – Odd bitplanes to sprite 2/3
1 – Odd bitplanes to sprite 0/1
0 – Even bitplanes to odd bitplanes

BIT – CLXCON COMPONENTS
15 – Enable sprite 7 in collison tests
14 – Enable sprite 5 in collison tests
13 – Enable sprite 3 in collison tests
12 – Enable sprite 1 in collison tests
11 – Enable bitplane 6 in collision tests
10 – Enable bitplane 5 in collision tests
9 – Enable bitplane 4 in collision tests
8 – Enable bitplane 3 in collision tests
7 – Enable bitplane 2 in collision tests
6 – Enable bitplane 1 in collision tests
5 – Value to match for bitplane 6
4 – Value to match for bitplane 5
3 – Value to match for bitplane 4
2 – Value to match for bitplane 3
1 – Value to match for bitplane 2
0 – Value to match for bitplane 1

Figure II: The format of the collection (top) and control registers

In dual playfield mode, playfield 1 will appear above playfield 2. This can be reversed by setting bit 6 of BPLCON2.

The playfield priorities are then set relative to the sprites. Each playfield is allocated a number from 0 to 4 for one of the five possible settings.

This value (see Figure I) is put into the corresponding bits of BPLCON2. Bits 0 to 2, called PF1P0 to PF1P2, are set for the first playfield and bits 3 to 5, PF2P0 to PF2P2, are set for the second playfield.

For example, if you wanted a dual playfield screen with sprites 0 and 1 on top, then playfield 2, then sprites 2 and 3, then playfield 1 and finally sprites 4 to 7, you would set it up like this: Playfield 2 above playfield 1, so set bit 6. Sprites 0 and 1 above playfield 2, so set PF2P0-2 to 001. Sprites 0, 1, 2 and 3 above playfield 1, so set PF1P0-2 to 010.

Consequently the correct value to set BPLCON2 to would be – taking all the bits from above to form a binary number – %1001010, or $4a in hex.

However the playfield priority is taken from bit six and can look a little strange if, for example, in the above example we set it so playfield 1 appears above playfield 2.

This would mean that sprites 2 and 3 would appear above playfield 1 but below playfield 2, but playfield 1 would appear above playfield 2. Think about it. Sounds strange? Not as strange as it looks.

Once you have your priorities right you can check for collisions between the sprites and playfields. When the ▶

◄

co- processors try to display a bit from a sprite or a playfield and there is an overlap with another sprite or playfield a collision bit is recorded in the collision register, CLXDAT. This is a read-only register which is cleared to zero each time it is read.

The make-up of the register is fairly complex and is further complicated by the control register CLXCON. The format of these registers is explained in Figure II. All collisions between even numbered sprites and bitplanes are registered. However, the odd numbered sprites in the sprite pairs are by default not registered in collisions. For odd sprite collisions you have to set the relevant bits in CLXCON.

There are two bits for each bitplane in CLXCON. One is to enable the bitplane in collision tests – so if, for example, you only wanted to test a collision between sprites and bitplane 2, you would only set bit 7 and enable plane 2 in collision tests. This masks out unwanted bitplanes from the test.

The second bit in CLXCON is for the match value. This is the bit that will actually generate a collision. For example, if you set up for only bitplane 2 as above, and then set the match value for bitplane 2 (bit 1) to zero, it will register a collision between sprites and gaps on the bitplane and no collision between sprites and solid areas on the bitplane.

When several bitplanes are used you can set the match value to generate a collision with a particular colour on the screen. If you have a 5 bitplane, 32 colour screen you can enable the first five bitplanes and put in the match value (bits 1 to 5) of the number of the colour register you want to generate a collision with.

The music play routine in The Right-Button Demo on this month's cover disc uses this feature to detect when the mouse pointer (a sprite) is over one of the boxes that control the program. As we can only detect one collision at a time, the routine switches between checking for each of the three different colours of the boxes. They appear the same colour because they are defined to the same colour value.

In this way the routine checks for a collision with each box every third frame. Obviously with more boxes we would either have to use more colours and test less frequently or use some sort of coordinate testing system which would tell us which box was selected if the collision only told us that a box had been clicked, but not which one.

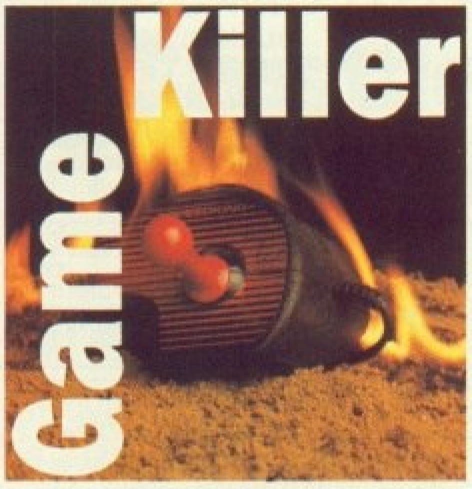
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Take it to the limit

Beating games is easy when you have got Max the Hacks on your side

Raider

JOHN Warlound says: Here is the complete set of codes for Raider. SHOT, DYKE, HIGH, LINK, PEAR, KILN, and BAND. Now you have no excuse for not trying to finish.



Robocop

GRAHAME Stirling says: Punch all the guys at start, then punch the motorbike. To avoid guys that shoot, duck and punch. When you have your gun, shoot up and right. When you get to the end of the level, jump and fire to blow up the robot.

Level two is easy, on level three shoot all the guys. Punch the wall and get ammo. Shoot two guys then the oil drum. Go slow, hit the first three guys then the other three and then the last three.

Jump down to get the food on your left. Hit the enemies then the wall. Hit all the men, get the ammo and shoot both baddies and motorbikes. Slow down, when the guy is about to enter the screen, shoot him.

Shoot once and hit two punks, then a bike. When the van comes, jump and fire at the same time to blow it up with the guys behind.

When the two photofit faces, or later the heat prints, appear, pause by hitting Return, and wait until the tune has finished. Examine the faces for differences and change them quickly by hitting fire, up and down, left and right.

In the junkyard shoot both of the guys who start above you. Get the ammo on the ledge then jump on to conveyor belt after the magnet. Then go under the other magnet by turning left to slow down.

Jump on to the ground to go under the crushers. Shoot the guy. Wait for the three metal bars to fall, then hit the guys and get the big gun. Shoot!

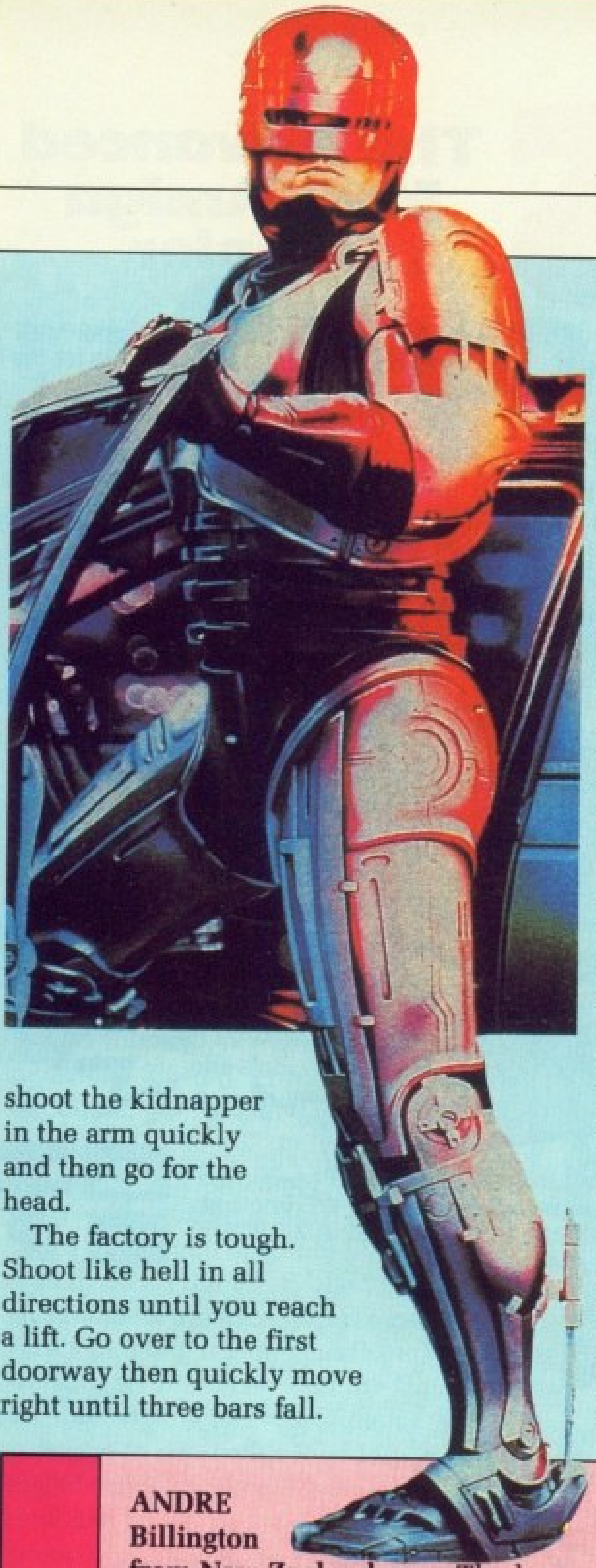
Go up the lift and get the food on the left hand side, then carry on going right, shooting everyone, then turn to face your left and jump and fire to blow up the digger.

When you have to save the hostage

Kick off

ROBERT Delve says: Save a league where you are top.Load the league when you invite your friends round and continue playing. You only have one more match to play, so if you win you will win the league.





shoot the kidnapper in the arm quickly and then go for the head.

The factory is tough. Shoot like hell in all directions until you reach a lift. Go over to the first doorway then quickly move right until three bars fall.

Go up in the lift, collect ammo, up in the lift and wait for three bars which are falling to hit the wall. Jump down to collect the gun. Take the lift up, punch the wall, then shoot and jump to complete level.

Shoot all the wall-mounted lasers and guys. Get the gun, food, and ammo. Jump three steps then fire to kill. Baby food will give you more power. Complete the level by jumping and firing. Shoot all the lasers on walls. Punch wall and collect gun. Take lift up and wait until first beam on the right stops. Go through as quickly as possible.

Punch wall then shoot guy on the right. Shoot daleks, then go up on the lift shoot lasers then run through beams without stopping. Shoot daleks and guys.

Punch wall, shoot lasers and get food. Go up lift get ammo, punch wall, shoot dalek, shoot lasers. Go up lift, shoot dalek, get food, punch wall, shoot lasers. Go up lift punch wall, complete level by the usual way!

The last level is the same as level six, but don't shoot the President. If this is too much for you, pause the game at any time and type "BEST KEPT SECRET" and action will reset. You'll start again with infinite energy.

Faerytale Adventure

ANDRE Billington from New Zealand says: The lasso tames the golden swan. The lasso is found in Grimwood where a witch guards it. You can kill the witch with a bow.

Use the wand to make your jobs easier. It is found in the Mountain of Frost just west of the circle of stones in a cave.

The four golden statues are scattered: The first in the Crystal Palace on isle of sorcery. Just talk to the lady in the middle. If you keep on talking to her your luck start to rise. The second statue is found in the SeHold. For the third you need the golden swan so you can rescue the princess from the forbidden fortress south of Marheim.

The King gives you a writ. You must give it to the lady in Marheim which heals you when you talk to her. She gives you the statue.

The fourth statue is found in the great bog west of the golden triangle.



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GAME Killer is always on the lookout for hot tips, so if you have found a cheat mode, bug or written a poke drop it in the post – on disc if it is a long listing.

If your work is used I'll send you a game draw at random from the goodies box and a Konix Speedking joystick. To speed up getting the prize to you please cut out, photocopy or copy this form. It will be used as the address label to send out your parcel.

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Signature...
Date...

Cavorting with commands

The word processor is mightier than the sword. Peter Ceresole uses Protext to tame the AmigaDos dragon

WORD processing is curiously like driving a car. There's something to *do*, which is driving, or writing, and there's the machine you're doing it with. I know it's just a bunch of bits in formation, but after a while the bits feel like a whole. And that's when it all starts to become really enjoyable.

And thinking of Skodas, I had a lot of crashes to start with. With the Amy, of course. How about you? Yeah, I thought so.

I started out running Protext over the Workbench so I could do some of those things you absolutely have to be able to do all the time, like formatting and relabelling discs. What a pain that was. I'm using a 1 meg machine, but I waltzed with the Guru all the time.

I was writing to a deadline, as well as trying to cope with Real Life, so I cast about for advice. Never be ashamed to ask people who seem to know what they're doing. My friend Alex says that he always runs Protext500, even with a meg available, and has no problems multi-tasking. Well, OK.

I prefer to stay inside Protext. I'm not a programmer, I'm a user, and I like to type a few words in and change the world. A bit like Hitler really.

If you boot Protext from the disc, as opposed to double clicking on its icon from Workbench, you have the command line interface (CLI) immediately underneath, and that's how most of the guys in the know run the program – including the brains behind it, Arnor boss Mark Tilley.

To do this you have to re-size the windows. Click on the background gadget and you get the CLI window. Shrink it as short and wide as it will go and drag it down to the bottom of the screen. Then click back to Protext, and re-size that window so that it lets you see the CLI window at the bottom. Remember, you can only re-size Protext in Edit mode.

And that's it. If you want the CLI, you click in its window; the same for Protext.



But this is all boringly manual. There *has* to be an automatic way – and there is. It involves a lightweight Sumo session with the Startup-Sequence file, which is in the S directory of the Protext disc.

Figure I is a modified version of the boot sequence supplied on the Protext program disc.

The objective is to define the windows for both Protext and the CLI. After *run Protext500* you enter the window parameters with the prefix -W. Top left corner is 0,0; the window is full width, 640, and 200 deep. You can see how this is tacked on to the command.

You do the same for the instruction to run the full sized Protext.

The last line in the file sets up the CLI window. Workbench 1.2 takes the instruction *NewCLI CON:*, and 1.3 takes *NewShell NEWCON:*, and then the window details, using the same parameter system as for Protext, but with slashes instead of commas for separators. Finally you should give the CLI window a name. And that's it. Deeply wonderful.

OK? Well.... no, not OK.

```
echo "Protext v4 program disk."
echo "(c) Arnor 1988."
addbuffers df0: 20
setmap gb
failat 15
isa500
if error
 echo "Loading small Protext..."
 run protext500 -W0,0,640,200
else
 setclock opt load
 echo "Loading full Protext..."
 run protext -W0,0,640,200
endif
; The next line is for v 1.2
;newcli con:0/201/640/55/MyShell
; This one is for v 1.3
newshell newcon:0/201/640/55/MyShell
```

Figure I: Protext Startup-Sequence

FIRST, I believe that you need as much screen space as you can get when you're using a word processor. Giving any up to the CLI is bad. You could always work with the full screen and then move the bottom of the Protext window to reveal the CLI, or click the back gadget, but re-sizing or clicking any time you want to do something feels inelegant.

There's another way. Typing a CLI command on the Protext command line preceded by an asterisk runs that command invisibly. The basic requirement is that you have the file to run that command in the current directory or the C: directory on the Protext disc. So for instance, with Relabel in the directory:

```
*RELABEL DF1: "Review Files"
```

at the Protext command line will relabel the disc in the second drive to "Review Files". But there's a snagette. If you type this:

```
*RELABEL DF1:"Review Files"
```

◀ nothing will happen at all. Can you spot the crucial difference? If you click Protext into the background you can see the CLI telling you that there was an improper argument to Relabel. We left out the space that should be between the colon and the opening quote of the filename. No good at all.

You have to remember the syntax for all the AmigaDos commands you want to use. Unlike Protext's built-in commands – Copy for instance, which prompts you in a friendly way – with AmigaDos you just get a cold wind from Bristol.

Is there any way, I thought as I breathed heavily over the manual, to make this wretched thing friendlier? Well, hold on to your eyeballs fans, here it is – Friendly AmigaDos.

YOU use mail merge. After all, you're paying for it, and I'll bet you don't use it for mail merging much – no, neither do I – so it might as well earn its keep. Mail merge can be used to prompt for words, and it can make pre-formed sentences out of your input, so it should be ideal. Here's how.

Let's start with re-labelling discs. We'll run this with an exec file, called Rel, which goes like this:

```
L relabel.mm
PS
```

Log on to DF0: and save it there.

Typing *X REL* at the command line will cause Relabel.mm to load, and then be printed to the screen, which is the mail merge way to run things.

This is Relabel.mm:

```
>DF rel
>AV "RELABEL drive : "drive
>AV "RELABEL new label: "label
>WF RAM:Hobo
>WF on
>WM *relabel &drive& "&label&"
>WF off
>WC
>CF
>EX exec RAM:Hobo
```

Again, save it to DF0:. This is how it works: The first line opens a datafile. Mail merge needs to grab a file, but as we don't have to read any data I've made it grab Rel, which I know is there because I've just executed it.

The second line prompts you for the drive spec (DF0:, DF1: or whatever) and assigns the answer the the mail merge variable *drive*. The third line asks you for the new name of the disc, and assigns whatever string you type in to the variable *label*.

The fourth and fifth lines prepare to write a file to ram. I've called it Hobo because the only requirement is that there shouldn't be another file with the same name already there in case it overwrites it.

Line six uses the *drive* and *label* variables and makes them into the proper AmigaDos command line. Lines seven, eight and nine stop the file-write and close the datafile.

Finally line 10 calls an Protext command to execute RAM:Hobo, which is the file containing the command line we want.

That's it – Friendly AmigaDos. And they said it couldn't be done.

ONCE you've done the first one, you can do any number. All you have to do is alter the prompt lines and change the file names to, say, FormatD for formatting discs, and Bob's your thingy. (And thanks to Doug Thompson of Arnor for his help.)

So the FormatD file is:

```
L Format.mm
PS
```

which loads and prints to the screen (runs) the Format.mm file of mail merge commands:

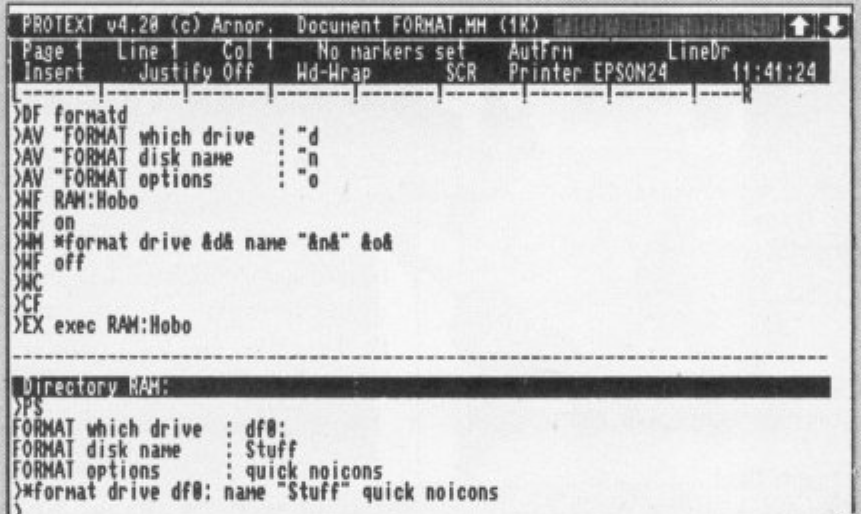
```
>DF formatd
>AV "FORMAT which drive : "d
>AV "FORMAT disk name : "n
>AV "FORMAT options : "o
>WF RAM:Hobo
>WF on
>WM *format drive &d& name "&n&" &o&
>WF off
>WC
>CF
>EX exec RAM:Hobo
```

The plain vanilla version with no options formats the long way round; it's for discs that have never been touched before. A quick format would have Quick as the option, which formats in seconds any disc that's been formatted before.

The disc to be formatted has to be in the drive before you start. If you're doing this with one drive, you must copy FormatD, Format.mm, Rel, Relabel.mm, Format and Relabel into the ram disc at the start of the day, or simply as you need them. Log on to RAM: to run the process. If there's some problem, click on the back gadget to see what obscure message the CLI has sent you.

To run properly these tricks need an empty file in Protext, so Swap to the second file. If both files are full and you need to format a disc to save one or both of them, you can either save one of them to ram, clear it from Protext and recover it later, or you can merge one file on to the end of the other temporarily.

At the end you'll have Format.mm



◄ left in your editing file. To format another disc, just print it to the screen again (PS) and follow the prompts.

BELIEVE me, it works, I've just used it. Between this para and the one before lies more than an hour of messing about. The system started to crash kind of fuzzily – things didn't quite go right – and when I reset the system the Amy refused to read my Protext work disc.

This is the second disc failure since I've started to write these articles. I'm not used to it. In five years of using 3in discs on various Amstrads I've never had one go down. I don't fancy these 3.5in floppies at all right now, but because on the Amiga you're stuck with them, the only thing to say is back up everything. That's the important thing.

Anyway, at the end of the whole grinding process, using DiskSalv from the August cover disc and more help from my friend Alex, I recovered all the odd config and macro files I'd built up. Then I re-formatted the bad disc using FormatD, *and it worked.* Forged in action, fellers. You'll find the relevant exec and command files in my drawer.

I've learnt my lesson. Back-up. Back-up. Back-up. This is Obvious Advice country, but really necessary. The truth is that a lot of the pleasure and performance of the program has nothing to do with fancy coding on our part. It's all in the user's approach.

PROTEXT is very powerful and unbelievably quick. In fact, like most good WPs, the program is too powerful to be learnt completely. The thing is not to try and hammer it all in, but to be relaxed about the idea that you *don't* know it all.

I've been using it on the CPC for nearly five years, and to come back to the car analogy, all the controls fall readily to hand, but I keep on discovering new accessories.

And there's the fun. I really enjoyed working out how to use mail merge to do the formatting and re-labelling. Drawing new characters on the screen isn't something I ever thought I'd do, but doing it sure beats watching TV. Isolating the address for envelopes gives me pleasure each time I use it now. And the key to success is browsing.

Browsing may not sound very hi-tech, but it *is* a major productive activity. "Just" browsing through the manual with the machine fired up, and "just" fiddling about with things like mail merge, gets you familiar with the system and suggests lots of nice wheezes, some of which might even be useful.

Read a lot of magazines – definitely read the letters columns – and join a club. For every problem, there's always a friendly techie out there who knows the solution. The trick is to meet him, and a club is the place.

In the meantime, hang loose. It doesn't matter what you do; the program as it comes from Arnor works fine, so there's no hurry.

Make the program yours.

Play with Protext

Have you done your HAMwork?

In the red corner I give you DigiPaint 3 and in the blue, Photon Paint 2. Your referee is Martyn Oakley

WHATEVER the spotty oik in the shop says, there is no single art package for the Amiga.

You will need a standard one, something like Spritz or Deluxe Paint III, and then you'll need another for those occasions when you want to play with HAM.

Art programs have come along leaps and bounds over the last few years, from the first glimpse of King Tut on DPaint, right up to the two newest, DigiPaint 3 and Photon Paint 2 – both sequels to successful HAM packages which use all 4,096 colours to get stunning life-like pictures.

DIGIPAINT 3 has many new features to help you get the best results in the shortest time. Menus have been made easy to use and there are now 11 different painting modes.

Your pictures can be larger than the screen, Super Bitmaps let you have your canvas as big as 1024 x 1024 pixels. You can get around this massive painting area by moving your pointer to the edge of the screen – NewTek's auto-scrolling does the rest.

The menu bar is held within the control panel, not where you expect it to be on a title bar at the top of the



screen. The control panel has been well designed. It has been spaced out into three sections – tools, text and controls. You get a little icon of what can be done with each gadget, which will save you a lot of experimenting.

Making brushes is a breeze. Not only can you cut square and freehand brushes, but also any of the drawing gadgets can be used to cut something out. Ever tried cutting a freehand circular brush?

Once you have grabbed your brush you can lay it on top of your artwork, fade it in with the background, warp it, light it appropriately and still use it to paint with.

The menu system for selecting where your light source position will be includes control over the type of dither. Gone are the days of airbrushing slight changes of colour, taking hours. It can all be done with the press of a button.

Tiling is another new feature. It enables you to duplicate the brush, making patterns and giving everything an early '80s Top of the Pops look.

DigiPaint 3 has an unusual text function. Letters are not typed on to the picture, but into a requester box. This becomes a brush in the selected font, which can be warped, rotated and smoothed to get rid of all the jagged edges on letters like O and S. Text can also be made transparent or multi-coloured, so you don't have to go back and do it by hand.

PHOTON PAINT is the other HAM art package to have had a facelift. Animation is the major new feature. You can now make HAM pictures move. That is, if you have a vast amount of memory. Which most of us don't. The anim demo supplied will not work fully with 1 meg, but it puts the point across. Lots of action means lots of frames, and that swallows ram.

The title bar at the top of the screen has not changed since Photon Paint 1, but the menu bar has had a lot of new features crammed into it. I much prefer the layout in DigiPaint 3, but once you have learned the hot key short cuts in Photon, the menu bar will rarely be used.

Photon has a stencil (DigiPaint 3 doesn't). With it you can mask off the part of the canvas you wish to keep, and any of the colours within that area will not be touched.

Cutting brushes is easy, with either square or freehand cutting tools. Brushes can be wrapped around shapes. I liked this feature in the original Photon Paint, and I'm glad to see it was kept in Photon Paint 2. Wrapping is something DigiPaint 3 can't do.

Contour has been added to the list of shapes brushes can be wrapped around – Tube, Cone, Ball, Ellipse, Free, and two kinds of Cube – so now you can remould the brush, adding perspective to your work. It does it properly and doesn't skimp around the edges. My favourite is Free, which lets you make a random shape to wrap you brush on – you can cram your brush into a egg timer

▶

Altered images

TRANSFER 24 is an extra program on the second DigiPaint 3 disc. This takes a HAM screen and turns it in to a lo-res 32 colour picture. The loading screen pops up to allow you to select hi-res, interlace, horizontal overscan and vertical overscan before you load in your picture.

It produces a histogram that tells you how much red, green and blue you have on your screen. This has no relevance to drawing a good picture, but is useful if you have imported a digitised piccy from DigiView and want to adjust the tint.

You can also fiddle with brightness, contrast, saturation and sharpness. If you have used DigiView all the menus will look familiar.

A common problem when pulling together a screen from a number of bits of clip art is that different brushes need different palettes. Lifting a damsel in distress from a castle balcony and putting her on a sun-drenched beach all too often results in giving her sea-green skin, yellow lips and a dress which clashes with her shoes.

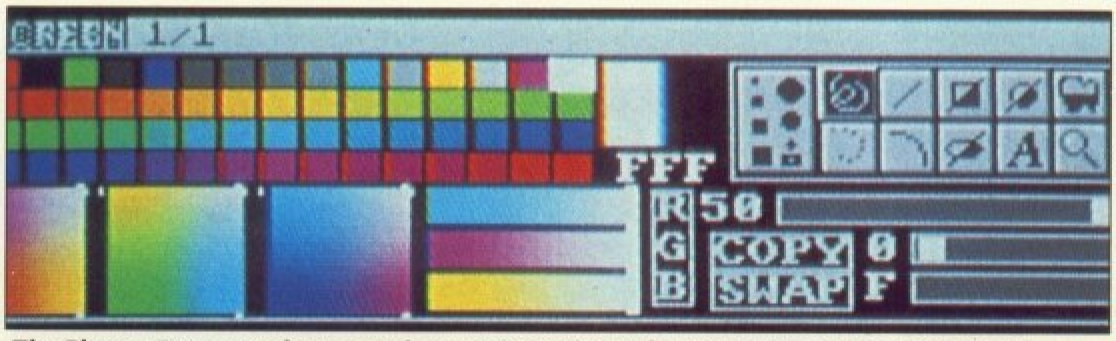
Transfer 24 can play games with the pallette. So if you have a 25 colour princess and a 20 colour beach, you can use Transfer 24 to re-map the beach into 12 colours and the girl to 20 colours. By using a 32 colour mode there is room for everything. After merging the two you can touch up the result and paint her lips red.

The utility is really designed for using pictures which have been saved using DigiView in the 24 bit (16 million colour) mode. Hence its name. But it is a program which most Amiga artists could have used at some time or other.

Turning a 4,096 colour screen into a four colour one for an icon may not yield useful results, but it is a mark of flexibility that it is possible.



A mock-up screen showing all DigiPaint 3 gadgets panels



The Photon Paint 2 gadgets panel. Everything else is done from the menus or hot-keys

◀

with the greatest of ease.

Other new features include Shadow, which throws a drop shadow under wherever you are on the screen. A problem with this is if you have a shadow going to the bottom right of where your pointer is and you start drawing upwards, the shadow will overwrite the colour you are working with.

Everyone seems to want to jump on the video titling wagon, and the genlock option is MicroIllusions' ticket to ride.

It doesn't do anything clever, it just takes all the menus and cursor off your canvas. So in conjunction with a system like MiniGen you can lay HAM images and animations on your home vids.


HAM artwork can look incredibly life like. This is an example from Photon Paint 2

BOTH packages come with demo pictures showing what can be achieved with them. Photon Paint 2 has a second disc full of HAM artwork which you can load up and use in the tutorials. DigiPaint 3 not only gives you the pictures to view in the art package, but a routine on the second disc which does wipes and fades, showing all the artwork on the disc. But art is about freedom of expression and control over your medium, and nothing dries the creative juices faster than having to wait for a slow program to update a HAM screen.

In a side-by-side comparative test DigiPaint 3 was the faster all round, especially on brush movement and fills. The fact that all the menus are close to hand and easy to read also makes DigiPaint 3 faster and a pleasure to use.

If you are just starting out in HAM, then for its speed, ease of use and very good layout, DigiPaint 3 is the best place to start. It's going to take a Photon Paint 3 to beat it.

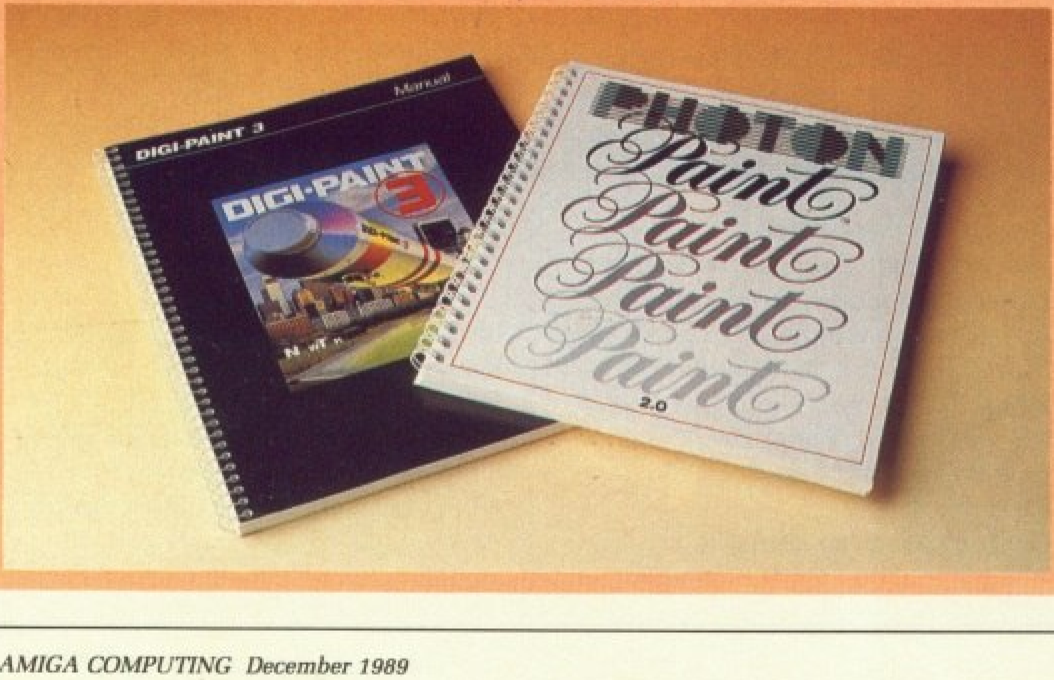
It's all in the book

DOCUMENTATION can make or break a program. The manual for DigiPaint 3 is well laid out, with room after each chapter for notes. A good idea, but I prefer to scribble comments in the margin.

I don't understand how anyone can produce a manual which lacks an index.

This is a crime for which NewTek should never be forgiven.

The manual that comes with Photon Paint 2 presents you with endless pages of text but no diagrams or pictures to help put the point across. The problem is alleviated by explanations being well worded, so it won't be long before you will have your first masterpiece on the screen.



REPORT CARD

Photon Paint 2
MicroIllusions 0480 496497
£89.95

EASE OF USE..
Simple menus. Animation needs lots of expansion memory _ one megabyte is barely enough to run the program.

SPEED..............
HAM will always be slow, but in this case speed had beeen sacrificed for greater accuracy.

VALUE..............
Improvements over version 1 do not merit the price of an upgrade

OVERALL 64%

Only worth buying for the animation, provided you have the ram.

REPORT CARD

DigiPaint 3
NewTek/Digipro 0703 703030
£79.95

EASE OF USE....
A doddle to doodle _ the user interface is fun be with. Flexible brushes give great control.

SPEED................
No need to wait for the paint to dry. Very fast for HAM.

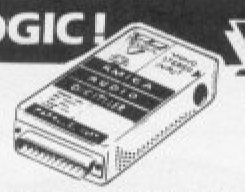
VALUE................
Expensive, but cheaper than the alternative.

OVERALL 88%

It's been a long time coming, but it's easily the best buy in HAM paint software.

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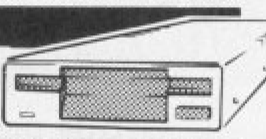


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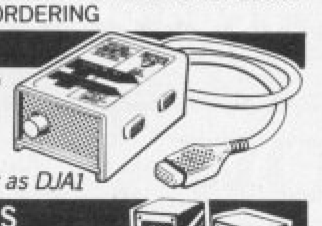
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Printer drivers are available for most printer types and the complete set of Computer Modern Fonts is included. A companion program METAFONT is available for those who wish to create new fonts or modify existing ones.

AmigaTEX is £125 and printer driver sets (laser series, Epson FX series, NEC P6 and Epson LQ series, HP DeskJet) are priced at £75 each. METAFONT is £50.
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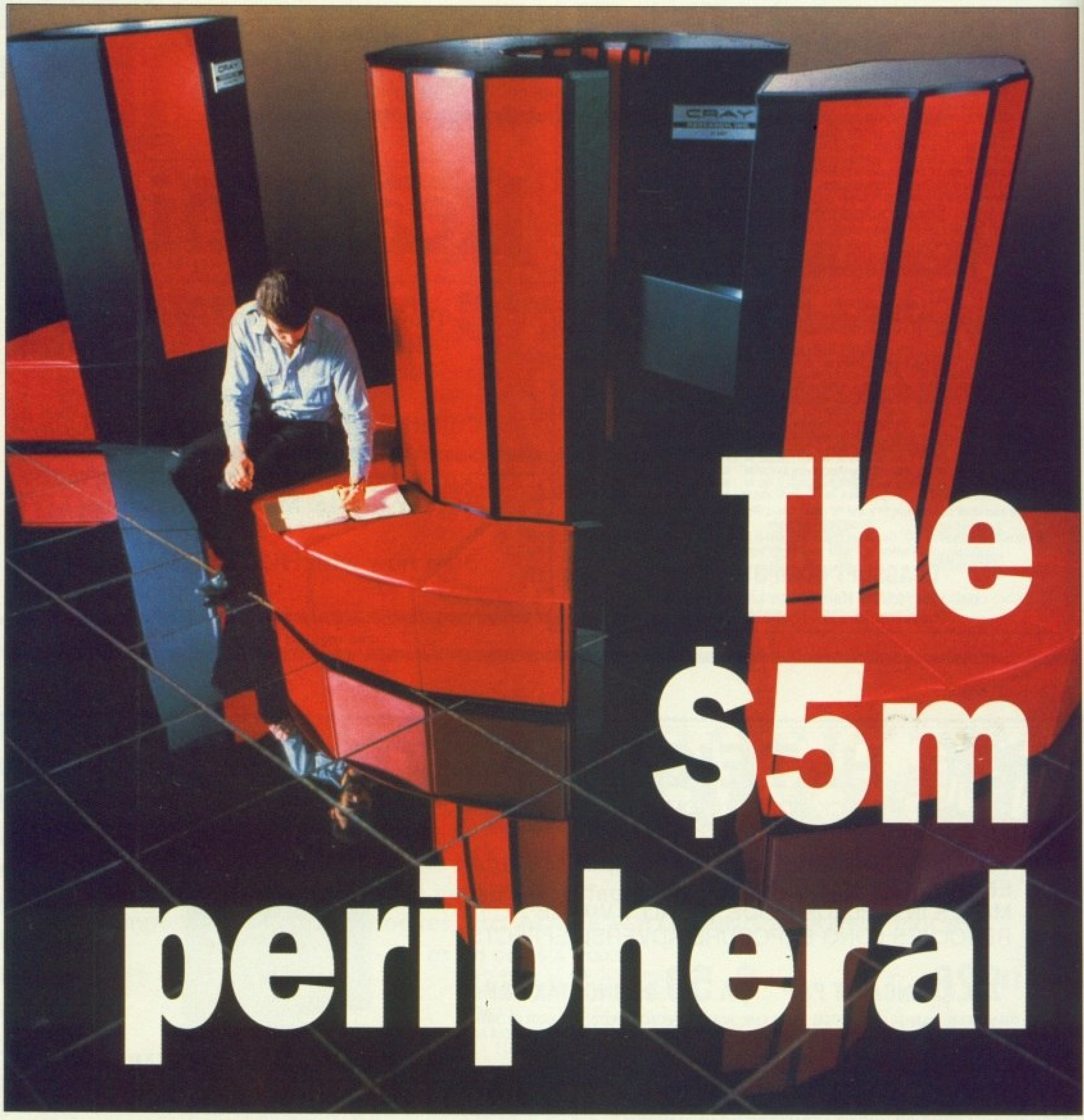


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The $5m peripheral

Simon Rockman meets the Cray twins – Professor Ad Wiseman and Eric Lugtigheid

MAD professors are supposed to live in castle towers surrounded by flasks of bubbling liquid. By this definition Professor Ad Wiseman is not mad. He lives in a comfortable flat in a very select part of Chelsea with his colleague Eric Lugtigheid. There are no flasks, just three Amiga 2000s.

Who else but a madman would want to interface an Amiga to a Cray? Not only is it difficult to find one of these water-cooled supercomputers, you couldn't fit it in the front room. That is

Straightening out the graphics kinks

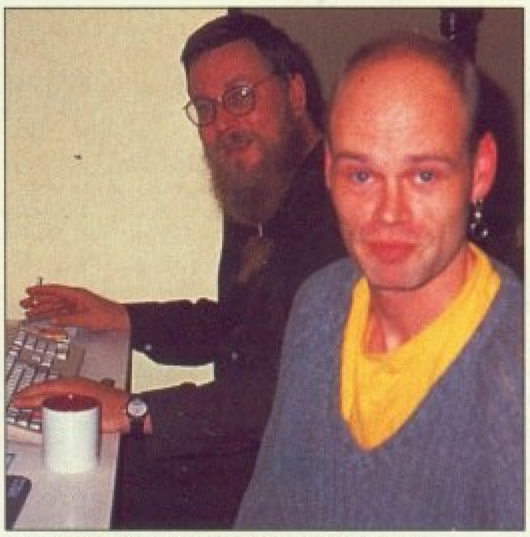
DESPITE the heavy computational side of the Cray project, the main aim is to provide tools for students on art courses. Sculpt is the best program on the Amiga for designing shapes, but some things are quite difficult to do. Freehand drawing is one of them. It is often easier to sketch an outline in 2D and then convert it to a solid shape.

The obvious method of sketching on paper seems a bit low-tech. DigiWorks is a program which can take an IFF file and spot the edges of a shape. It then turns the edges into vertices for a 3D shape. Eric wasn't happy with the quality of the results. Some lines which should be straight come out with kinks, and it cannot transfer colour information.

His solution was to write a program which was more accurate. The two scientists share the philosophy that computer languages are just a method for communicating with the computer and that they should choose the language which suits their purpose best.

For the edge detection program they chose GFA Basic. Ad wrote a procedure to load an IFF picture which so impressed GFA it is now included with the Basic interpreter. The result is so quick it is hard to believe the software is written in Basic. Given a complicated Deluxe Paint screen to read, the edges were spotted at least as quickly as DigiWorks and the accuracy was very much better.

A magnify option is useful in tidying up over-complicated areas where vertices meet. But the most powerful utility is a rotation option. This can give a 2D shape perspective before it is saved out in Sculpt format. Each object is saved separately – not as a scene, which makes the final assembly more flexible.



Cray couple...Eric Lugtigheid and behind him, Professor Wiseman

if you can persuade the US Department of Defense to let you part with $5,000,000 for one.

Well according to Professor Wiseman, lots of people. Mainly universities and colleges who have a lot of students and need cheap, powerful graphic terminals. They'd like super expensive terminals but can't afford to equip computer labs with 30 personal Irises at £20,000 each. They can afford Amigas.

And if anyone knows what the educational establishments want Ad does. In his native Holland he teaches 136 students at the Utrecht School of Art. The school has 80 Amigas and at least 90 of the students have an Amiga at home. He sees the real benefit to Commodore as being the role his students play spreading the word. At the end of each year they go out into the world of industry and commerce where they persuade employers to buy Amigas. Eric and Ad are in England on a six month project for the Royal College of Art to produce software to link the Amiga and a Cray 2 at the University of London Computer Centre (ULCC). The main thrust of this is to get the supercomputer to do all the work necessary in crunching numbers for ray tracing.

While the three Amigas they have can produce pretty good results thanks to their 68020 processor cards, it still takes somewhere between an hour and a day to produce a screen. The Cray can do it in seconds. Unfortunately the Cray cannot run Sculpt-Animate 4D, it uses a program written in Utah called MovieBYU.

The obvious thing to do is forget about Amigas and just use MovieBYU. Obvious but stupid. When you are using an Amiga the processor time is free, you've paid for the whole machine. When you are on-line to a Cray every microsecond is shared with other users and you have to pay.

It is far cheaper for students to fiddle with designs on the Amiga and then get the Cray to do the final high quality work. It is also far easier. MovieBYU has no graphical user interface. Shapes are designed by typing in numbers. A decent sphere needs 600 points, each with three coordinates. A fair bit of keyboard bashing.

The student, who may well be on an art – not a computing – course uses an Amiga and designs shapes, trying them out in low resolutions before logging on to the Cray. Then Ad and Eric's program translates the Scuplt data file into MovieBYU format. The student logs on to Cray and uploads the file for the heavy calculation to begin.

Seconds later the picture is complete and ready for downloading, but it is not a standard IFF file. The picture will use 16 million colours and needs around a megabyte of screen memory. So some special software converts this into an Amiga HAM picture, which only needs 300k and is quicker to download.

When the project is complete the way will be open for all universities to interface cheaply with a Cray.

A hand from Commodore

MUCH of the work Eric and Professor Wiseman have done has only been made possible with cooperation from Commodore. Jennifer Perry from the marketing department arranged the loan of three Amiga 2000s with A2620 processor cards, hard discs and multi-sync monitors.

These are used extensively both at the flat and at the Royal College of Art. Ad also uses his own machine, which has a Commodore 2080 monitor. This looks like the standard 1084 but has a special long-persistence screen. The effect is to hold an image.

Rapid movement – such as moving the mouse pointer or the screen scrolling – results in the whole object smearing. But it is ideal for working in interlace mode because it hides all the flicker.

Announcing PRODATA – the Arnor database

Software for the 1990s

Arnor, the makers of PROTEXT, are pleased to announce the arrival of our complementary database program, PRODATA.

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You can design different ways of presenting the data, e.g. straight list, address labels, tabulated data.

But you do not need Protext to use Prodata - it is a powerful database manager in its own right, ideal for all your filing applications. The program uses a simple set of menus which may be used with the keyboard or a mouse, as required.

Prodata is being launched simultaneously for the IBM PC and compatibles, Commodore Amiga and Atari ST, at a special introductory price of £55, available only until 30th November 1989. The recommended price will then become £79.95.

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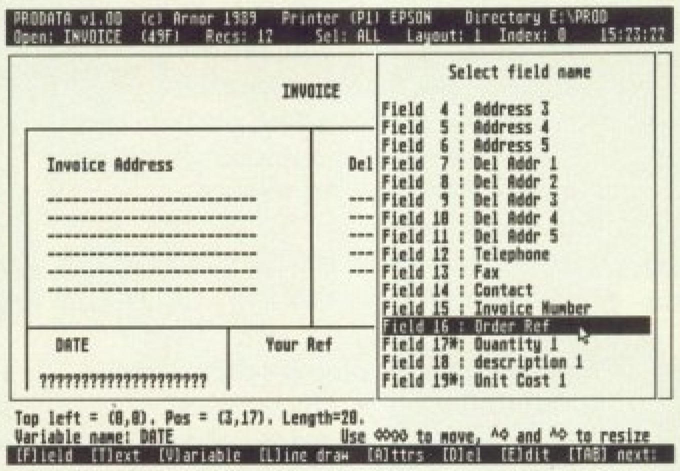
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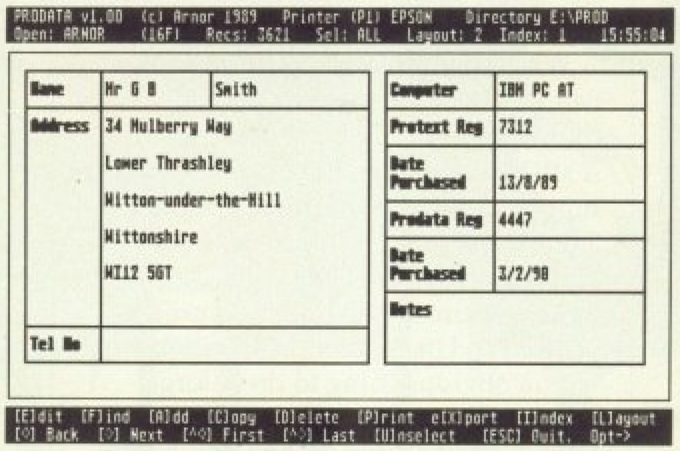
Printing. Comprehensive set of printer drivers, full use of printer control codes, options to set all margin sizes, headers and footers, microspacing used to give correct output in proportional fonts, background printing, print to printer or to a disc file.

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Designing a new layout



Displaying and entering data

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Letters

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Ezra



Back scratching?

I REALLY am surprised to read that you dare to call yourself "an independent publication"! I am referring to advice given to Marcus Barrett on Letters pages in the August issue of your magazine.

If Commodore has to advertise its A590 Hard Drive Plus then why not do it in an inoffensive manner? Please have some respect for your readers!

Don't get me wrong, as a micro owner with years of experience I have never been as satisfied with my machine as I am since I have bought my Amiga. Personally I don't think any micro on the market at present (including all models of Archimedes) comes close to its level of sophistication. But unfortunately drive design and production is one thing Commodore is absolutely useless at. Do you remember the 5.25in drive for the Commodore 64? Yes – the ones with the speed of a Spectrum cassette and reliability of the English weather.

Similarly with second drives for Amiga (3.5in floppy). I compared my Triangle with my friend's Commodore. Mine was 12 per cent faster, 40 per cent smaller and makes virtually no noise at all. For reasons unknown my drive is also £40 cheaper.

Therefore, if you must name only one supplier when advising your readers about hard drives, why not suggest Amdrive (40mb at £399), which is more advanced, more reliable and without question a much better buy? I'm convinced that there is a purpose in the existence of Commodore drives, but as yet I haven't been able to discover what it is. It would be nice if in future you could remember that there is more to being independent that just calling yourself independent. I think apologies are in order.

Adam Kusnierz,
Wembley, Middlesex.

While the editor isn't looking I'll admit that he is biased. He bought an A590 and thinks the sun shines out of its SCSI port. But he argues convincingly that he chose it because it is cheap, has the best DMA chip and is expandable. But then he buys the manufacturer's product because it is the one most likely to be supported by third party software.

I object to the accusation that Amiga Computing *is biased in favour of Commodore.*

The Vortex Hard Drive received a much better review than the A590.

The Amdrive has not been reviewed because ASAP was unwilling to lend us one for review.

Chatting with technical bods (and this is not a review) indicates that the Amdrive hardware is pretty damn good but is handicapped by slow software.

The best setup would be a Commodore interface with a better drive in the box. And the nearest anyone comes to that is Power Computing with the Turbo 3.

Secret drawer

YOUR free software doesn't work. I bought *Amiga Computing* to use Diskchecker but found that on opening a window from Workbench and typing in the relevant command produces "Unknown Command Diskchecker". As the remainder of the disc appears to run OK, is this a fault or is there something that I do not know?

I have some Lotus 1-2-3 5.25in discs intended for use on a Wang PC with a Winchester drive. As I have a Triangle Multi-Drive would Lotus run on the Amiga using a utility such as DOS to DOS?

Tim Goff,
St Leonards-on-Sea,
East Sussex.

Aw, simple. To keep things tidy programs get put into drawers. And the drawer which has Diskchecker in it is called "Diskchecker". Original huh? So type cd diskchecker to get into the drawer and then type diskchecker to run the program.

Just because you can read a disc doesn't mean you can run a program. I can put The Beach Boys Greatest Hits *into my C64 cassette deck, but even a high speed loader won't cope with it. Dos to Dos will read data, you could pull off files and read them into a word processor. But you can't run Lotus.*

Commodore used to have a program called Transformer which attempted this but failed. Amiga 2000 owners can buy a bridge- ►

Wired

I HAVE built a connection lead for my old 1541 disc drive to my Amiga using the examples from the manuals. Doesn't work though. They are a six pin from the 1541 to a 25 pin connector.

I have KindWords 2 and am having trouble trying to print out a letter with graphics. The printer I am using is a Hewlett Packard Paintjet, the graphics from Photon Print and Deluxe Photolab.

Paul Betts,
Pennycomequick, Plymouth.

Wow. It would be easier to answer these questions if you had said which manual. I can't find anything about the 1541 in Introduction to the Amiga. *I guess you are trying to wire the drive up as a second floppy. That is a no-no. The 1541 is a drive with brains. It uses a serial interface and a whole load of circuitry to slow everything down. No one said they were* **good** *brains. So you'll need to talk to the 1541 using the serial port. (And given how stupid it is, it might help if you shout.)*

The software to do this is called Access 64. At the mo. it is only available for the A1000, but an A500 version is due out in January. Who is Penny?

Kind Words will not accept high resolution or HAM pictures. You need a better paint program, try Deluxe Paint.

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board for a little more than a separate PC. This will do a respectable job of running Lotus. But would you want to?

On-line answers

PLEASE could you tell me where to buy a modem and how much it would cost? And if possible could you give me an address or phone number. What colour printer would be best to buy for about £250? On Workbench 1.2. where is the disc doctor?

Jamie Lamb,
Leigh-on-Sea, Essex.

What kind of modem you need depends on what you want to log in to. The two best buys at the moment are the Microlink MultiSpeed and the Amstrad SM2400.

The Multispeed runs at up to 1200 bits per second full duplex, which is compatible with most bulletin boards and subscription services.

It is available from Database Direct on 051-357 2961 and costs £179.95. Ask them for an IBM compatible cable.

The Amstrad costs £250 but is often available for less. It works at twice the speed, which means it works with all the same systems as the MicroLink modem but will also work with the newer 2400 bits per second systems.

I tried a couple of dealers near you but had no joy in finding anyone who stocks modems. Y2 in Watford stocks the Amstrad. This is a good dealer and understands modems and Amigas. Call on 0923 510161 and hassle Rod.

The Star LC-10 colour seems to be winning a lot of friends in the Amiga world. It is a good cheap mono printer but will splash a bit of colour around with the appropriate ribbon.

The cheapest way to get one is to visit one of the Christmas computer shows – the Commodore Show or Computer Shopper – or to haggle in Tottenham Court Road. Service? Wassat?

Diskdoctor is on the main 1.2 disc, you need to click on the CLI icon and type Diskdoctor. A better program is DiskSalv, which was on the August issue cover disc.

DTP printer

QUESTION: Could you recommend a printer for an 11-year-old boy who likes toying with Photon Paint and would like to do DTP quite soon. For that purpose could you recommend a DTP pack that allows graphics and is quite simple to use, both of them quite cheap, please.

I have just upgraded from an Acorn Electron and am completely lost with Amiga Basic. The manual just confuses me. My mum is interested for educational software for 11 and 13-year-old children (my brother and me) for the Amiga 500 or do we have to get a BBC emulator?

Christopher Beeley,
Retford, Notts.

The Star LC-10 colour printer is very popular among Amiga owners. Not up to high quality DTP, but if you are working to a tight budget it's highly recommended.

Publishers Choice is the cheapest "proper" DTP program, although you could skimp a bit and use Kind Words, which is a word processor with some DTP functions.

The Basic Commodore supplied with the Amiga isn't much cop. Have a look at Hisoft Basic. There isn't much educational software. Check out the articles in the July and October issues on teaching and Fun School 2.

Count on me

I HAVE four questions for you.

1. I am wondering if it's possible to have digitised speech and samples sounds on my workbench when it's loading. If so what program can I use?

2. I am trying to make my own game using a package called Graphicraft. Is it possible or will I need another? If so which one will be best for a beginner or can I use Amiga Basic? If so can you tell me some commands?

Martin Breeze,
Nantwich, Cheshire.

Good grief, you've a lot to learn. First, to ask four questions you have to be able to count beyond two. Thirdly the PD program PLAY will produce a sound from an IFF sound file. You'll need to create the sample with a digitiser and then include PLAY and the sound file in the Startup-sequence on your workbench.

Graphicraft is not man enough for the job of writing a game. The simple wimps way of doing this is to use Shoot-'em-up Construction Kit.

This might teach you something about game design, but you'll learn zilch about programming. A better route is to buy a copy of Hisoft Basic and learn something about programming.

Don't try to run before you can walk.

Murder

THIS is one of those pointless letters. It's about a murder! Yes a murder. Whos? Mine, well not exactly mine. I had a Colonel Hansford in the air force in Falcon. I, well he, had 150 merit points I know its not a lot but it takes some getting.

Anyway one flight I left my landing gear out too long and a voice said "Warning Warning" so I put my landing gear up but the voice continued.

While looking for the fault I was not concentrating and the ground came up and hit me. All that hard work lost. Ah! well now I've got my mission disc I'm satisfied.

Wayne Hansford,
Poole, Dorset.

Bunch of keys

CONGRATS on your excellent mag. Now down to business: I am currently prototyping a spreadsheet program in AmigaBasic and need to detect function and cursor arrow key presses but have been unable to find any documentation on this subject.

The ROM Kernel Manual shows how to do this from C, but I've been unable to get it working under Basic.

The final version of my spreadsheet will be written in a more suitable language, probably C, but I chose Basic for the prototype for speed of development.

JP Winnard,
Standish, Lancs.

Thanks JP. The first thing to do when writing any program in Basic is click once on the icon, drag it over to the trashcan and delete the godawful program. Then reach for your Visa card with one hand, the phone with the other and dial 0525 718181 to order a copy of Hisoft Basic.

You can read all the keys, and this even works with the standard Microsoft Basic, by using the INKEY$ command documented on page 8-63 of the Basic manual. Good luck with the C.

Born in the USA

OVER here in the US we use a different video format, NTSC as opposed to your PAL. My question is this: Would a PAL monitor work on an NTSC machine?

I have bought several programs in Europe, but they're always longer than my monitor screen can handle. Should I get a PAL monitor or get a PAL computer and monitor?

Chris Dacenza,
Fort Walton Beach,
Florida, USA.

To run a PAL set-up you would need a European computer, monitor and a power supply. Smart software houses produce games for both screen formats. It's not worth the hassle of changing.

Warning

READERS should not buy the boot selector advertised in the November issue. This device enables you to boot from an external drive, as does A-Tool, a PD program. But the software does not cost £9.99. A-Tool can also disable extra memory, detect if a virus is present, show and install disc bootblocks, disable the music filter AND copy discs in under a minute.

It also displays the time and is memory resident so all the features remain after a reset. Your mag and disc are far better than all the others!

Roy Weekes,
Sheerness, Kent.

Others? What others?

Clued up

READING the latest ish I just had to write. Reference Amiga Letters September. You said that there are some Amiga goodies which are unobtainable over here. Well you can buy the "Boing" mouse here for £79.95 from MAST, otherwise known as George Thompson

▶

◄

Services, on 077-082 234.

The Haitec 3D glasses can be got from Artronic Systems which handles the ray tracing package C-Light which has a special mode for generating images to use with the glasses. Tel: 0423 525325.

JJ Mccubbin,
Enniskillen, Co Fermanagh.

Well, the Ed wasn't too hot on readers' letters – which is why you've got me. Thanks for the tip.

The truth!

I CONGRATULATE your magazine on printing Steve Rackley's letter, which was more than your main rival publication would do when I complained to them after I had seen the ad for Datel Electronics in their rag.

I never even received the courtesy of a reply from the editor. Obviously they did not wish to fall foul of their advertiser. Needless to say I cancelled my subscription forthwith. *Amiga Computing* is informative, well balanced, and excellent value for money. My own forte is desktop video in which I work professionally.

Lynn Adams,
Bellshill, Lanarkshire.

Desperately seeking software

AFTER reading your magazine I am convinced that you will be able to help. I am having difficulty finding an accounts package that will help me run a mail order club, catering for orders, payments, commission and so on.

I need to be able to control 12 or more customer accounts keeping track of order details, payments made and balances for each one.

Previously I ran the club on a Spectrum 48k using two marvellous programs called Finance Manager and Masterfile.

Even though the Amiga is a far more advanced computer than the Spectrum, there don't appear to be many good business programs. Can you or any of your readers restore my faith in the superb Amiga by coming up with a decent accounts package?

CB Martin,
Wordsley, West Midlands.

I can't vouch for quality because we've only just had the programs in for review, but there are three accounts programs just out.

Cashbook Controller and Final Accounts from Digita, on 0395 270273, costs £69.95. Small Business Manager from Hi Tension, on 0252 344454, costs £99.95. And XYZZY from ASAP, call 0274 280222, costs £149.95.

Arnor, 0733 68909, has Prodata £80 which is a neat looking database, and I suspect best suited to your needs. All these programs will be reviewed soon.

Get it together

THE September 1989 issue was the first *AC* issue I've bought and I instantly became a regular reader. The assembly language programming article was very good, especially as I'm trying to learn assembly myself.

Anyway, you seem like sensible blokes, if not slightly odd, so I've a few questions that I hope you will answer.

Unlike a different mag that edited one of my letters, leaving me in the dark. OK here goes:

How do you edit graphic raw data, such as the logo, of the demo source code? Where is the actual music data in the demo source?

OK, that's the lot for now. I hope you reply, as it'll be a great help. Thanks for the mag, and the reply!

Karl Bergin,
Co Wicklow, Eire.

I've cut your letter down a bit because the simple answer is "Buy some books". Compute!'s Amiga Machine Language Programming Guide, £21.95 from The Computer Store 021-770 0468. There was no music source supplied with the demo, but you can add your own. The tools to convert an IFF file to RAW data were on the September cover disc.

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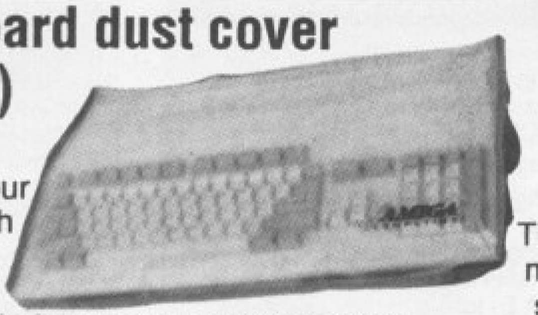
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